ALL MODE MULTI-BAND TRANSCEIVER

TS-2000/B2000/2000X
TS-2000S/V/SX/VX

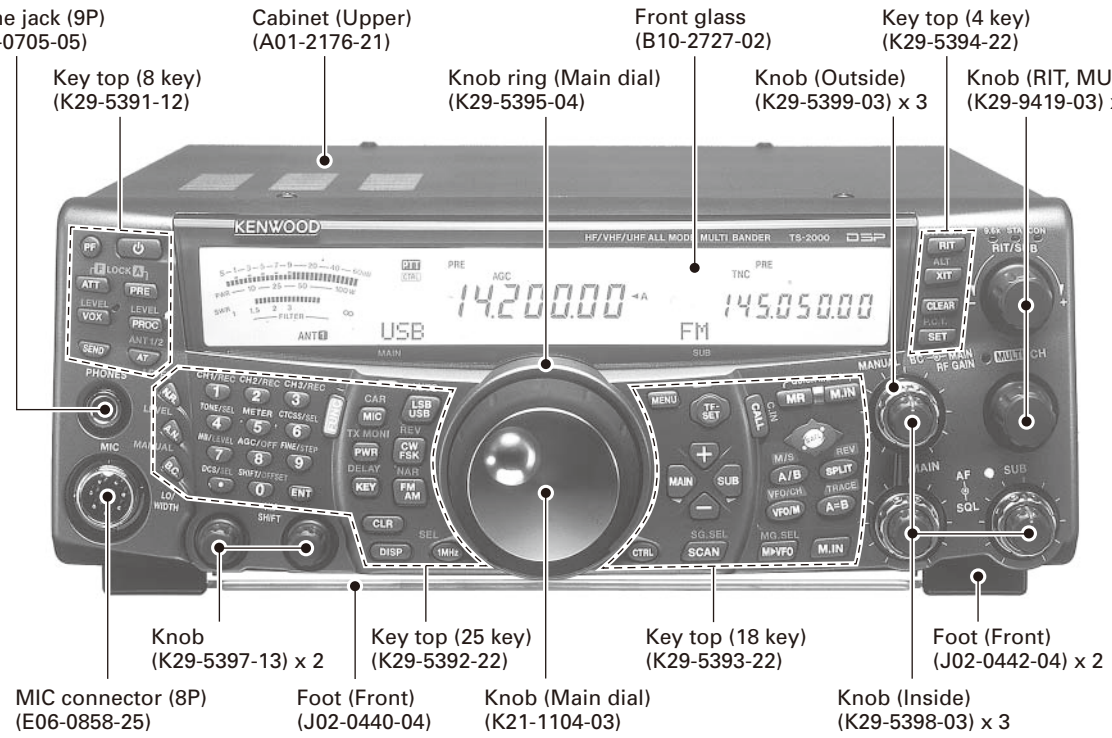
SERVICE MANUAL SUPPLEMENT III

KENWOOD

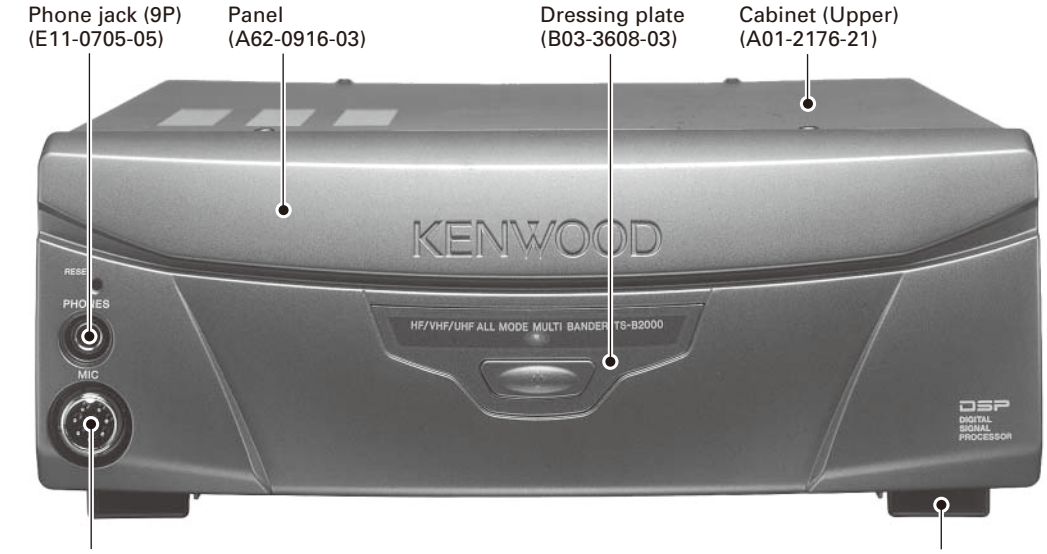
Kenwood Corporation

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B51-8846-00 (N) 242

TS-2000/2000X/2000S/2000V/2000SX/2000VX



TS-B2000



This product complies with the **RoHS** directive for the European market.

This product uses Lead Free solder.

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CONTENTS

BEFORE USING THE SERVICE MANUAL 3
PARTS LIST 4
ADJUSTMENT 21
INTERCONNECTION DIAGRAM 37
PC BOARD
FINAL UNIT (X45-384X-XX)..... 39
FILTER UNIT (X51-318X-XX) 45
TX-RX 1 UNIT (X57-605X-XX) 47
TX-RX 3 UNIT (UT-20) (X57-607X-XX)..... 49
SCHEMATIC DIAGRAM
FINAL UNIT (X45-384X-XX)..... 53
TX-RX 3 UNIT (UT-20) (X57-607X-XX)..... 59
FILTER UNIT (X51-318X-XX) 63
TX-RX 1 UNIT (X57-605X-XX) 65
LEVEL DIAGRAM 67

BEFORE USING THE SERVICE MANUAL

■ This service manual (SUPPLEMENT III) describes the information of the changed PCBs in the TS-2000/TS-B2000/TS-2000X/ TS-2000S/TS-2000V/TS-2000SX/TS-2000VX transceiver.
Refer to the appropriate TS-2000 service manual for items which are not listed in this service manual.
① TS-2000/TS-2000X: B51-8558-00
② TS-2000S/TS-2000V/TS-2000SX/TS-2000VX: B51-8545-00
③ TS-B2000: B51-8569-00
④ TS-2000/TS-2000X/TS-B2000: B51-8622-00 SUPPLEMENT
⑤ TS-2000/TS-B2000/TS-2000X/TS-2000S/TS-2000V/ TS-2000SX/TS-2000VX: B51-8773-00 SUPPLEMENT II

- Refer to the table for the serial number of each transceiver with this service manual.
- Destination of the parts list/ PCB figures/ schematic diagrams of this service manual are changed from the former service manual.
Please read the following list, as they have been rearranged.
Reference: TS-2000 (K)=K1

Model Name & Destination	Serial Numbers		Destination of Parts list/ PCB figures/ Schematic diagraams
	X45-384,X51-318,X57-605	X57-607	
TS-2000(K)	00100001~	-	K1
TS-B2000(K)	00100001~	-	K2
TS-2000X(K)	00100001~	00300001~	K3
TS-2000(E)	00100001~	-	E1
TS-B2000(E)	-	-	E2
TS-2000(E2)	00100001~	-	E3
TS-B2000(E2)	-	-	E4
TS-2000X(E)	00100001~	00300001~	E5
TS-2000S(J)	00700001~	-	J
TS-2000V(J)	00700001~	-	J1
TS-2000SX(J)	00300001~	00300001~	J2
TS-2000VX(J)	00300001~	00300001~	J3

■ Content of Parts list

- The transceiver mechanical components describes only the changed parts and the added parts from the service manual.
- Final unit (X45-384) describes all parts.
- Filter unit (X51-318) describes all parts.
- TX-RX 1 unit (X57-605) describes only parts of C/10 - J/10.
- TX-RX 3 unit (X57-607) describes all parts.

■ Content of Adjustment method

Only the changed section is described.
- Transmitter Section and 1200MHz Unit Transmitter Section

■ Content of PCB figures/ Schematic diagram

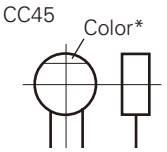
- Final unit (X45-384)/ Filter unit (X51-318)/ TX-RX 3 unit (X57-607) describes all circuits.
- TX-RX1 unit (X57-605) describes only the unit section of C/10 - J/10.

PARTS LIST

CAPACITORS

C C 4 5 T H 1 H 2 2 0 J
1 2 3 4 5 6

1 = Type ... ceramic, electrolytic, etc.
2 = Shape ... round, square, etc.
3 = Temp. coefficient
4 = Voltage rating
5 = Value
6 = Tolerance



• Capacitor value

010 = 1pF
100 = 10pF
101 = 100pF
102 = 1000pF = 0.001μF
103 = 0.01μF

2 2 0 = 22pF
Multiplier
2nd number
1st number

• Temperature coefficient

1st Word	C	L	P	R	S	T	U
Color*	Black	Red	Orange	Yellow	Green	Blue	Violet
ppm/°C	0	–80	–150	–220	–330	–470	–750

2nd Word	G	H	J	K	L
ppm/°C	±30	±60	±120	±250	±500

Example : CC45TH = –470±60ppm/°C

• Tolerance (More than 10pF)

Code	C	D	G	J	K	M	X	Z	P	No code
(%)	±0.25	±0.5	±2	±5	±10	±20	+40 –20	+80 –20	+100 –0	More than 10μF : –10~+50 Less than 4.7μF : –10~+75

(Less than 10pF)

Code	B	C	D	F	G
(pF)	±0.1	±0.25	±0.5	±1	±2

• Voltage rating

1st word \ 2nd word	A	B	C	D	E	F	G	H	J	K	V
0	1.0	1.25	1.6	2.0	2.5	3.15	4.0	5.0	6.3	8.0	–
1	10	12.5	16	20	25	31.5	40	50	63	80	35
2	100	125	160	200	250	315	400	500	630	800	–
3	1000	1250	1600	2000	2500	2150	4000	5000	6300	8000	–

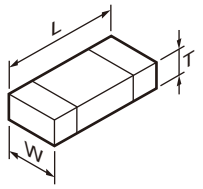
• Chip capacitors

(EX) C C 7 3 F S L 1 H 0 0 0 J
1 2 3 4 5 6 7
(Chip) (CH, RH, UJ, SL)

(EX) C K 7 3 F F 1 H 0 0 0 Z
1 2 3 4 5 6 7
(Chip) (B, F)

Refer to the table above.
1 = Type
2 = Shape
3 = Dimension
4 = Temp. coefficient
5 = Voltage rating
6 = Value
7 = Tolerance

• Dimension



Chip capacitor

Code	L	W	T
Empty	5.6±0.5	5.0±0.5	Less than 2.0
A	4.5±0.5	3.2±0.4	Less than 2.0
B	4.5±0.5	2.0±0.3	Less than 2.0
C	4.5±0.5	1.25±0.2	Less than 1.25
D	3.2±0.4	2.5±0.3	Less than 1.5
E	3.2±0.2	1.6±0.2	Less than 1.25
F	2.0±0.3	1.25±0.2	Less than 1.25
G	1.6±0.2	0.8±0.2	Less than 1.0
H	1.0±0.05	0.5±0.05	0.5±0.05

RESISTORS

• Chip resistor (Carbon)

(EX) R D 7 3 E B 2 B 0 0 0 J
1 2 3 4 5 6 7
(Chip) (B, F)

• Carbon resistor (Normal type)

(EX) R D 1 4 B B 2 C 0 0 0 J
1 2 3 4 5 6 7

1 = Type
2 = Shape
3 = Dimension
4 = Temp. coefficient
5 = Rating wattage
6 = Value
7 = Tolerance

Chip resistor

Code	L	W	T
E	3.2±0.2	1.6±0.2	1.0
F	2.0±0.3	1.25±0.2	1.0
G	1.6±0.2	0.8±0.2	0.5±0.1
H	1.0±0.05	0.5±0.05	0.35±0.05

• Rating wattage

Code	Wattage	Code	Wattage	Code	Wattage
1J	1/16W	2C	1/6W	3A	1W
2A	1/10W	2E	1/4W	3D	2W
2B	1/8W	2H	1/2W		

PARTS LIST

✻ New Parts. ⚠indicates safety critical components.
Parts without **Parts No.** are not supplied.
Les articles non mentionnes dans le **Parts No.** ne sont pas fournis.
Teile ohne **Parts No.** werden nicht geliefert.

L : Scandinavia **K** : USA **P** : Canada
Y : PX (Far East, Hawaii) **T** : England **E** : Europe
Y : AAFES (Europe) **X** : Australia **M** : Other Areas

TS-2000/B2000/2000X/2000S/2000V/2000SX/2000VX (Y52-327X-XX)
FINAL UNIT (X45-384X-XX)

Ref. No.	Address	New parts	Parts No.	Description	Destination
TS-2000/B2000/2000X/2000S/2000V/2000SX/2000VX					
3	2C	✻	A10-4017-21	CHASSIS	
5	1F	✻	A22-2524-01	SUB PANEL	E3,E5,J
5	1F		A22-2524-01	SUB PANEL	J1,J2,J3
5	1F		A22-2524-01	SUB PANEL	K1,K3,E1
5	1F		A22-2524-01	SUB PANEL	K2,E2,E4
13	1J	✻	B52-0614-10	SCHEMATIC DIAGRAM	E1,E2,E3
13	1J	✻	B52-0614-10	SCHEMATIC DIAGRAM	E4,E5
13	1J	✻	B52-0614-10	SCHEMATIC DIAGRAM	K1,K2,K3
14	1J	✻	B52-0616-10	SCHEMATIC DIAGRAM	E1,E2,E3
14	1J	✻	B52-0616-10	SCHEMATIC DIAGRAM	E4,E5
14	1J	✻	B52-0616-10	SCHEMATIC DIAGRAM	K1,K2,K3
15	1J	✻	B52-0617-10	SCHEMATIC DIAGRAM	E1,E2,E3
15	1J	✻	B52-0617-10	SCHEMATIC DIAGRAM	E4,E5
15	1J	✻	B52-0617-10	SCHEMATIC DIAGRAM	K1,K2,K3
16	1J	✻	B62-1220-60	INSTRUCTION MANUAL(JAPANESE)	J,J1,J2
16	1J	✻	B62-1220-60	INSTRUCTION MANUAL(JAPANESE)	J3
16	1J	✻	B62-1221-40	INSTRUCTION MANUAL(ENGLISH)	E1,E2,E5
16	1J	✻	B62-1221-40	INSTRUCTION MANUAL(ENGLISH)	K1,K2,K3
16	1J	✻	B62-1222-20	INSTRUCTION MANUAL(FRENCH)	E1,E2,E5
16	1J	✻	B62-1223-20	INSTRUCTION MANUAL(SPANSISH)	E3,E4
16	1J	✻	B62-1224-10	INSTRUCTION MANUAL(GERMAN)	E1,E2,E5
16	1J	✻	B62-1225-10	INSTRUCTION MANUAL(ITALIAN)	E1,E2,E5
16	1J	✻	B62-1226-10	INSTRUCTION MANUAL(DUTCH)	E1,E2,E5
12	1J	✻	B46-0310-23	WARRANTY CARD	E1,E2,E3
12	1J	✻	B46-0310-23	WARRANTY CARD	E4,E5
12	1J	✻	B46-0469-30	WARRANTY CARD	K1,K2,K3
19	2C		E04-0167-15	RF COAXIAL RECEPTACLE(M)	
-			E07-0852-25	ROUND PLUG(MICROPHONE)	E1,E2,E3
-			E07-0852-25	ROUND PLUG(MICROPHONE)	E4,E5
-			E07-0852-25	ROUND PLUG(MICROPHONE)	K1,K2,K3
50	2C	✻	E37-0891-15	LEAD WIRE(EXT AT)	
-		✻	E37-1426-05	LEAD WIRE(X51 CN20,HF RX)	
73	2B	✻	F10-3102-04	SHIELDING COVER(X51)	
-	2B	✻	G02-1838-04	EARTH SPRING(Q7,8 UPPER):X45	
-	3B,1A	✻	G02-1840-04	EARTH SPRING(Q101,102,905 UNDER):X45	
-	3B,1A	✻	G02-1841-04	EARTH SPRING(Q101,102,905 UPPER):X45	
-	2A	✻	G02-1842-04	EARTH SPRING(Q903 UNDER):X45	
-	2A	✻	G02-1843-04	EARTH SPRING(Q903 UPPER):X45	
80	3E	✻	G02-0854-13	FLAT SPRING(MAIN DIAL)	E1,E3,E5
80	3E	✻	G02-0854-13	FLAT SPRING(MAIN DIAL)	J,J1,J2
80	3E	✻	G02-0854-13	FLAT SPRING(MAIN DIAL)	J3,K1,K3
89	3C	✻	G11-2588-14	RUBBER SHEET(CHASSIS FRONT)	
123	2F	✻	K29-5392-22	KEY TOP(25KEY)	E1,E3,E5
123	2F	✻	K29-5392-22	KEY TOP(25KEY)	J,J1,J2
123	2F	✻	K29-5392-22	KEY TOP(25KEY)	J3,K1,K3
124	2F	✻	K29-5393-22	KEY TOP(18KEY)	E1,E3,E5
124	2F	✻	K29-5393-22	KEY TOP(18KEY)	J,J1,J2
124	2F	✻	K29-5393-22	KEY TOP(18KEY)	J3,K1,K3
127	3E	✻	K29-9419-03	KNOB(RIT,MULTI)	E1,E3,E5
127	3E	✻	K29-9419-03	KNOB(RIT,MULTI)	J,J1,J2
127	3E	✻	K29-9419-03	KNOB(RIT,MULTI)	J3,K1,K3
140	1I		T91-0352-45	MICROPHONE	E1,E2,E3
140	1I		T91-0352-45	MICROPHONE	E4,E5
140	1I		T91-0352-45	MICROPHONE	K1,K2,K3
143	1F	✻	W02-3727-05	ENCODER(RIT/SUB)	E1,E3,E5
143	1F	✻	W02-3727-05	ENCODER(RIT/SUB)	J,J1,J2
143	1F	✻	W02-3727-05	ENCODER(RIT/SUB)	J3,K1,K3
FINAL UNIT (X45-384X-XX) 0-00 : J,J2,K1,K2,K3 0-01 : J1,J3 2-71 : E1,E2,E3,E4,E5					
-			C91-2691-05	CERAMIC 470PF 250WV	
C1			CK73GB1H104K	CHIP C 0.10UF K	
C2			CK73GB1H103K	CHIP C 0.010UF K	
C3			CK73GB1H104K	CHIP C 0.10UF K	
C4			CK73GB1H103K	CHIP C 0.010UF K	
C5			CK73GB1H102K	CHIP C 1000PF K	
C6			CK73GB1H103K	CHIP C 0.010UF K	
C7			CK73GB1E105K	CHIP C 1.0UF K	
C8			CK73GB1H104K	CHIP C 0.10UF K	
C9			CK73GB1H103K	CHIP C 0.010UF K	
C11			CK73GB1H104K	CHIP C 0.10UF K	
C12			CD04AZ1H100M	ELECTRO 10UF 50WV	
C13			CK73GB1H104K	CHIP C 0.10UF K	
C14			CK73GB1H102K	CHIP C 1000PF K	
C15			CK73GB1H104K	CHIP C 0.10UF K	
C17			CK73GB1H102K	CHIP C 1000PF K	
C18			CK73GB1H104K	CHIP C 0.10UF K	
C19			CK73GB1E105K	CHIP C 1.0UF K	
C20			CK73GB1H104K	CHIP C 0.10UF K	
C21			CD04AY1E470M	ELECTRO 47UF 25WV	
C22			CK73FB1E104K	CHIP C 0.10UF K	
C23			CK73GB1H102K	CHIP C 1000PF K	
C24,25			CK73FB1E104K	CHIP C 0.10UF K	
C26-28			CK73GB1E105K	CHIP C 1.0UF K	
C29			CK73FB1E104K	CHIP C 0.10UF K	
C30			CK73FB1H102K	CHIP C 1000PF K	
C31			CK73FB1E104K	CHIP C 0.10UF K	
C32,33			CK73GB1H102K	CHIP C 1000PF K	
C34			CK73FB1H103K	CHIP C 0.010UF K	
C35			CK73FB1E104K	CHIP C 0.10UF K	
C36		✻	CD04BD1H220M	ELECTRO 22UF 50WV	
C37			CK73EB1H104K	CHIP C 0.10UF K	
C38			CM73F2H151J	CHIP C 150PF J	
C39-46			C93-0716-05	CHIP C 3300PF K	
C47			CM73F2H331J	CHIP C 330PF J	
C50			CK73GB1H102K	CHIP C 1000PF K	
C51			CK73FB1A105K	CHIP C 1.0UF K	E2,E3,E4
C51			CK73FB1A105K	CHIP C 1.0UF K	E5
C51			CK73FB1A105K	CHIP C 1.0UF K	J,J2,K1
C51			CK73FB1A105K	CHIP C 1.0UF K	K2,K3,E1
C53			CK73GB1H102K	CHIP C 1000PF K	
C54			CK73GB1H103K	CHIP C 0.010UF K	
C56			CK73GB1H103K	CHIP C 0.010UF K	
C61,62			CM73F2H101J	CHIP C 100PF J	

J : TS-2000S J1 : TS-2000V J2 : TS-2000SX J3 : TS-2000VX
K1 : TS-2000 (K) K2 : TS-B2000 (K) K3 : TS-2000X (K)
E1 : TS-2000 (E) E2 : TS-B2000 (E) E3 : TS-2000 (E2) E4 : TS-B2000(E2) E5 : TS-2000X (E)

PARTS LIST

FINAL UNIT (X45-384X-XX)

Ref. No.	Address	New parts	Parts No.	Description			Destination
C63			CM73F2H271J	CHIP C	270PF	J	
C64			CM73F2H471J	CHIP C	470PF	J	
C65			CK73FB1E104K	CHIP C	0.10UF	K	
C66			CK73EF1V225Z	CHIP C	2.2UF	Z	
C67			CK73FB1E104K	CHIP C	0.10UF	K	
C68			C93-0555-05	CHIP C	5.0PF	C	
C69			CK73FB1H102K	CHIP C	1000PF	K	
C70			CK73FB1H103K	CHIP C	0.010UF	K	
C71		*	CD04BD1H220M	ELECTRO	22UF	50WV	
C73			CD04BC1E221M	ELECTRO	220UF	25WV	
C75			C93-0563-05	CHIP C	18PF	J	
C76			C93-0555-05	CHIP C	5.0PF	C	
C79		*	CD04BD1V101M	ELECTRO	100UF	35WV	
C81			CC73GCH1H470J	CHIP C	47PF	J	
C101			C93-0565-05	CHIP C	27PF	J	
C102			C93-0560-05	CHIP C	10PF	D	
C103			C93-0562-05	CHIP C	15PF	J	
C104,105			CC73FCH1H101J	CHIP C	100PF	J	
C106,107			CC73FCH1H220J	CHIP C	22PF	J	
C108,109			CC73FCH1H121J	CHIP C	120PF	J	
C110,111			CK73GB1H104K	CHIP C	0.10UF	K	
C112,113			CK73GB1H471K	CHIP C	470PF	K	
C114-117			CM73F2H820J	CHIP C	82PF	J	
C118			CK73FB1H471K	CHIP C	470PF	K	
C119			CK73FB1H103K	CHIP C	0.010UF	K	
C120			CK73FB1E104K	CHIP C	0.10UF	K	
C121			CK73FB1H471K	CHIP C	470PF	K	
C122			CK73FB1H103K	CHIP C	0.010UF	K	
C123			CK73FB1H102K	CHIP C	1000PF	K	
C124			CK73EF1V225Z	CHIP C	2.2UF	Z	
C125,126			CM73F2H390J	CHIP C	39PF	J	
C127-129			C93-0560-05	CHIP C	10PF	D	
C130,131			C93-0603-05	CHIP C	1000PF	K	
C132			CM73F2H200J	CHIP C	20PF	J	
C133			C93-0562-05	CHIP C	15PF	J	
C134,135			CM73F2H101J	CHIP C	100PF	J	
C136			C93-0561-05	CHIP C	12PF	J	
C201			C91-2691-05	CERAMIC	470PF	250WV	
C202			CK73GB1H103K	CHIP C	0.010UF	K	
C204			CK73GB1H103K	CHIP C	0.010UF	K	
C207			CD04AZ1E471M	ELECTRO	470UF	25WV	
C208			CK73FB1H102K	CHIP C	1000PF	K	
C212			CK73FB1H102K	CHIP C	1000PF	K	
C214			CK73GB1H103K	CHIP C	0.010UF	K	
C217			CK73FB1H102K	CHIP C	1000PF	K	
C219,220			CK73GB1H104K	CHIP C	0.10UF	K	
C223,224			CK73GB1H103K	CHIP C	0.010UF	K	
C225			CD04AZ1E471M	ELECTRO	470UF	25WV	
C226			CK73GB1H103K	CHIP C	0.010UF	K	
C227			CK73GB1H102K	CHIP C	1000PF	K	
C228			CK73GB1H103K	CHIP C	0.010UF	K	
C229			CD04AZ1H100M	ELECTRO	10UF	50WV	
C230			CK73FB1E104K	CHIP C	0.10UF	K	
C231			CK73GB1H104K	CHIP C	0.10UF	K	
C232			CK73FB1E104K	CHIP C	0.10UF	K	
C233,234			CK73GB1H104K	CHIP C	0.10UF	K	
C235			CK73GB1H103K	CHIP C	0.010UF	K	
C236			CK73FB1E104K	CHIP C	0.10UF	K	
C237			CK73GB1H104K	CHIP C	0.10UF	K	
C238			CD04AZ1H100M	ELECTRO	10UF	50WV	

Ref. No.	Address	New parts	Parts No.	Description			Destination
C239			C90-2021-05	ELECTRO	10UF	25WV	
C240			CD04AZ1V102M	ELECTRO	1000UF	35WV	
C241			CK73FB1H102K	CHIP C	1000PF	K	
C242			CK73FB1E104K	CHIP C	0.10UF	K	
C243			CD04AZ1H100M	ELECTRO	10UF	50WV	
C244,245			CK73GB1H104K	CHIP C	0.10UF	K	
C246,247			CK73FB1H102K	CHIP C	1000PF	K	
C248			CK73GB1H103K	CHIP C	0.010UF	K	
C249,250			CK73FB1H102K	CHIP C	1000PF	K	
C251,252			CK73GB1H102K	CHIP C	1000PF	K	
C253			CK73GB1H103K	CHIP C	0.010UF	K	
C254,255			CK73GB1H102K	CHIP C	1000PF	K	
C256			CD04AZ1E471M	ELECTRO	470UF	25WV	
C257			CD04AY1E470M	ELECTRO	47UF	25WV	
C258,259			CK73FB1H102K	CHIP C	1000PF	K	
C801-804			CK73GB1H104K	CHIP C	0.10UF	K	
C805			CK73FB1H102K	CHIP C	1000PF	K	
C806,807			C91-3115-05	HV CAP	10PF	2KV	
C808			CK73FB1E104K	CHIP C	0.10UF	K	
C809,810			CK73FB1H103K	CHIP C	0.010UF	K	
C811-816			C91-3115-05	HV CAP	10PF	2KV	
C817-822			CK73FB1H103K	CHIP C	0.010UF	K	
C823-830			C91-3115-05	HV CAP	10PF	2KV	
C831-836			CK73FB1H103K	CHIP C	0.010UF	K	
C837,838			C91-3126-05	HV CAP	10PF	3KV	
C839-844			CK73FB1H103K	CHIP C	0.010UF	K	
C845,846			C91-3127-05	HV CAP	18PF	3KV	
C847-852			CK73FB1H103K	CHIP C	0.010UF	K	
C853-856			C91-3127-05	HV CAP	18PF	3KV	
C857-862			CK73FB1H103K	CHIP C	0.010UF	K	
C863-866			C91-3123-05	HV CAP	150PF	3KV	
C867-872			CK73FB1H103K	CHIP C	0.010UF	K	
C873,874			C91-3123-05	HV CAP	150PF	3KV	
C875-880			CK73FB1H103K	CHIP C	0.010UF	K	
C881,882			C91-3123-05	HV CAP	150PF	3KV	
C883-886			CK73FB1H103K	CHIP C	0.010UF	K	
C887			C91-3123-05	HV CAP	150PF	3KV	
C888,889			CK73FB1H103K	CHIP C	0.010UF	K	
C890			C91-3123-05	HV CAP	150PF	3KV	
C901			CC73FCH1H470J	CHIP C	47PF	J	
C902			CC73FCH1H150J	CHIP C	15PF	J	
C903			CD04AY1E470M	ELECTRO	47UF	25WV	
C904			CK73GB1H471K	CHIP C	470PF	K	
C905,906			CK73GB1H103K	CHIP C	0.010UF	K	
C907			CK73GB1H471K	CHIP C	470PF	K	
C909			CK73GB1H471K	CHIP C	470PF	K	
C912			CK73GB1H471K	CHIP C	470PF	K	
C914			CK73GB1H104K	CHIP C	0.10UF	K	
C915			CC73FCH1H470J	CHIP C	47PF	J	
C916			CK73GB1H103K	CHIP C	0.010UF	K	
C917			CC73GCH1H040B	CHIP C	4.0PF	B	
C918			CC73FCH1H050B	CHIP C	5.0PF	B	
C919			CK73GB1H471K	CHIP C	470PF	K	
C921			CK73FB1H471K	CHIP C	470PF	K	
C922			CK73GB1H103K	CHIP C	0.010UF	K	
C926			CC73FCH1H471J	CHIP C	470PF	J	
C928			CK73FB1E104K	CHIP C	0.10UF	K	
C931,932			CC73FCH1H270J	CHIP C	27PF	J	
C934			CK73GB1H471K	CHIP C	470PF	K	
C936			CM73F2H200J	CHIP C	20PF	J	

J : TS-2000S J1 : TS-2000V J2 : TS-2000SX J3 : TS-2000VX
K1 : TS-2000 (K) K2 : TS-B2000 (K) K3 : TS-2000X (K)
E1 : TS-2000 (E) E2 : TS-B2000 (E) E3 : TS-2000 (E2) E4 : TS-B2000(E2) E5 : TS-2000X (E)

PARTS LIST

FINAL UNIT (X45-384X-XX)

Ref. No.	Address	New parts	Parts No.	Description	Destination
C938			CK73GB1H103K	CHIP C 0.010UF K	
C939			CM73F2H180J	CHIP C 18PF J	
C940			CC73FCH1H471J	CHIP C 470PF J	
C941			CM73F2H180J	CHIP C 18PF J	
C942			CK73FB1H103K	CHIP C 0.010UF K	
C943			C93-0554-05	CHIP C 4.0PF C	
C944			CD04AZ1H100M	ELECTRO 10UF 50WV	
C945			CM73F2H080D	CHIP C 8.0PF D	
C946			CK73GB1H471K	CHIP C 470PF K	
C947			CM73F2H130J	CHIP C 13PF J	
C948			CK73GB1H103K	CHIP C 0.010UF K	
C949			C93-0557-05	CHIP C 7.0PF D	
C950			CM73F2H100D	CHIP C 10PF D	
C951			C93-0556-05	CHIP C 6.0PF D	
C952,953			CK73GB1H471K	CHIP C 470PF K	
C954			C93-0551-05	CHIP C 1.5PF C	
C955			C93-0553-05	CHIP C 3.0PF C	
C956			CK73GB1H103K	CHIP C 0.010UF K	
C958			CK73GB1H104K	CHIP C 0.10UF K	
C959			CD04AS1E470M	ELECTRO 47UF 25WV	
C960,961			CM73F2H270J	CHIP C 27PF J	
C962			CK73GB1H471K	CHIP C 470PF K	
C963			CK73GB1H103K	CHIP C 0.010UF K	
C965			CD04AZ1H100M	ELECTRO 10UF 50WV	
C966			CK73GB1H103K	CHIP C 0.010UF K	
C967			CK73GB1H471K	CHIP C 470PF K	
C968			C93-0603-05	CHIP C 1000PF K	
C969			CK73GB1H471K	CHIP C 470PF K	
C970			CK73GB1H103K	CHIP C 0.010UF K	
C971			CK73GB1H471K	CHIP C 470PF K	
C973,974			CK73GB1H471K	CHIP C 470PF K	
C976			CK73GB1H471K	CHIP C 470PF K	
C978,979			C93-0554-05	CHIP C 4.0PF C	
C980			C93-0557-05	CHIP C 7.0PF D	
C981			CC73GCH1H471J	CHIP C 470PF J	
C982			CM73F2H100D	CHIP C 10PF D	
C985			C93-0553-05	CHIP C 3.0PF C	
C987			CM73F2H150J	CHIP C 15PF J	
C989-991			CC73GCH1H101J	CHIP C 100PF J	
C993			C93-0556-05	CHIP C 6.0PF D	
C994			C93-0555-05	CHIP C 5.0PF C	
C995			C93-0566-05	CHIP C 33PF J	
C996,997			CC73GCH1H471J	CHIP C 470PF J	
C998			CM73F2H150J	CHIP C 15PF J	
CN1,2			E04-0154-05	PIN SOCKET	
CN4			E04-0154-05	PIN SOCKET	
CN5			E40-6528-05	PIN ASSY	
CN8			E40-6525-05	PIN ASSY	
CN9			E40-6078-05	FLAT CABLE CONNECTOR	
CN10			E40-5764-05	FLAT CABLE CONNECTOR	
CN15			E41-1692-05	PIN ASSY	
CN16			E41-1690-05	PIN ASSY	
CN17			E23-1310-05	TEST TERMINAL	
CN22			E41-1682-05	PIN ASSY	
CN27			E40-6526-05	PIN ASSY	
CN203,204			E23-1116-05	RELAY TERMINAL	
CN801,802			E04-0154-05	PIN SOCKET	
CN901			E04-0190-05	PIN SOCKET	
CN902			E40-5765-05	FLAT CABLE CONNECTOR	

Ref. No.	Address	New parts	Parts No.	Description	Destination
CN903,904			E23-1116-05	RELAY TERMINAL	
CN905			E04-0190-05	PIN SOCKET	
CN906			E23-0486-05	TERMINAL	
CN907			E23-1310-05	TEST TERMINAL	
W1			E37-0975-25	LEAD WIRE WITH TERMINAL	J,J1,J2
W1			E37-0975-25	LEAD WIRE WITH TERMINAL	J3,K1,K2
W1			E37-0975-25	LEAD WIRE WITH TERMINAL	K3
W1		✻	E37-1435-05	LEAD WIRE WITH TERMINAL	E1,E2,E3
W1		✻	E37-1435-05	LEAD WIRE WITH TERMINAL	E4,E5
		✻	F12-0489-04	CONDUCTIVE SHEET	
F1			F53-0328-05	FUSE(5A/32V)	
F2			F52-0038-05	FUSE(BLADE)(4A/32V)	
F3			F53-0391-05	FUSE(10A/60V)	
-			G13-2018-04	CUSHION	
CN6,7			J13-0410-05	FUSE HOLDER	
-			L92-0105-05	TROIDAL CORE	
-			L92-0412-05	TROIDAL CORE	E1,E2,E3
-			L92-0412-05	TROIDAL CORE	E4,E5
-		✻	L92-0475-05	TROIDAL CORE	E1,E2,E3
-		✻	L92-0475-05	TROIDAL CORE	E4,E5
L1			L41-4705-33	SMALL FIXED INDUCTOR(47UH)	
L2			L41-1095-33	SMALL FIXED INDUCTOR(1.0UH)	
L3			L39-1450-05	TOROIDAL COIL	
L4			L33-0699-05	CHOKE COIL	
L5			L41-4705-33	SMALL FIXED INDUCTOR(47UH)	
L6,7			L33-0699-05	CHOKE COIL	
L8			L39-1450-05	TOROIDAL COIL	
L9			L33-0699-05	CHOKE COIL	
L10-13			L92-0149-05	CHIP FERRITE	
L14		✻	L39-1434-15	TOROIDAL COIL	
L15			L39-1451-05	TOROIDAL COIL	
L16			L39-1490-05	TOROIDAL COIL	
L19			L33-0625-15	TOROIDAL COIL	
L20			L34-1231-15	AIR-CORE COIL	
L22			L33-0651-05	CHOKE COIL	
L101			L34-1058-05	AIR-CORE COIL	
L102			L34-1177-05	AIR-CORE COIL	
L103,104			L34-4606-15	AIR-CORE COIL	
L105			L34-4652-05	AIR-CORE COIL	
L106			L34-4658-05	AIR-CORE COIL	
L107			L34-4652-05	AIR-CORE COIL	
L108,109			L34-0452-05	AIR-CORE COIL	
L110,111		✻	L34-4655-05	AIR-CORE COIL	
L130		✻	L34-4882-05	AIR-CORE COIL	
L201,202			L41-1005-33	SMALL FIXED INDUCTOR(10UH)	
L203			L41-4705-33	SMALL FIXED INDUCTOR(47UH)	
L204,205			L40-1001-12	SMALL FIXED INDUCTOR	
L801			L40-1001-12	SMALL FIXED INDUCTOR	
L802-805			L39-1441-05	TOROIDAL COIL	
L806,807			L39-1440-05	TOROIDAL COIL	
L808-810			L41-4705-33	SMALL FIXED INDUCTOR(47UH)	
L811			L34-4633-05	AIR-CORE COIL	
L812-814			L41-4705-33	SMALL FIXED INDUCTOR(47UH)	
L815			L34-4630-05	AIR-CORE COIL	
L816-818			L41-4705-33	SMALL FIXED INDUCTOR(47UH)	
L819			L34-4490-05	AIR-CORE COIL	
L820-822			L41-4705-33	SMALL FIXED INDUCTOR(47UH)	
L823			L34-4490-05	AIR-CORE COIL	

J : TS-2000S J1 : TS-2000V J2 : TS-2000SX J3 : TS-2000VX
K1 : TS-2000 (K) K2 : TS-B2000 (K) K3 : TS-2000X (K)
E1 : TS-2000 (E) E2 : TS-B2000 (E) E3 : TS-2000 (E2) E4 : TS-B2000(E2) E5 : TS-2000X (E)

PARTS LIST

FINAL UNIT (X45-384X-XX)

Ref. No.	Address	New parts	Parts No.	Description	Destination
L824-826			L41-4705-33	SMALL FIXED INDUCTOR(47UH)	
L827			L34-4628-05	AIR-CORE COIL	
L828-830			L41-4705-33	SMALL FIXED INDUCTOR(47UH)	
L831			L34-4490-05	AIR-CORE COIL	
L832-834			L41-4705-33	SMALL FIXED INDUCTOR(47UH)	
L835			L34-4490-05	AIR-CORE COIL	
L836-838			L41-4705-33	SMALL FIXED INDUCTOR(47UH)	
L840			L41-2275-33	SMALL FIXED INDUCTOR(0.022UH)	
L901			L41-1085-33	SMALL FIXED INDUCTOR(0.1UH)	
L903			L41-3375-33	SMALL FIXED INDUCTOR(0.033UH)	
L905			L40-1075-92	SMALL FIXED INDUCTOR(10NH)	
L907			L40-1085-92	SMALL FIXED INDUCTOR(100NH)	
L908			L92-0443-05	CHIP FERRITE	
L909,910		*	L34-4655-05	AIR-CORE COIL	
L912			L34-1239-05	AIR-CORE COIL	
L913			L34-1231-15	AIR-CORE COIL	
L914			L34-1239-05	AIR-CORE COIL	
L915			L34-1232-15	AIR-CORE COIL	
L916			L34-4811-05	AIR-CORE COIL	
L918,919			L34-4811-05	AIR-CORE COIL	
L922,923			L34-4811-05	AIR-CORE COIL	
L924			L34-1239-05	AIR-CORE COIL	
L927-930			L41-1085-33	SMALL FIXED INDUCTOR(0.1UH)	
L932			L34-4811-05	AIR-CORE COIL	
R1			RK73GB2A150J	CHIP R 15 J 1/10W	
R2			RK73GB2A220J	CHIP R 22 J 1/10W	E2,E3,E4
R2			RK73GB2A220J	CHIP R 22 J 1/10W	E5
R2			RK73GB2A220J	CHIP R 22 J 1/10W	J,J2,K1
R2			RK73GB2A220J	CHIP R 22 J 1/10W	K2,K3,E1
R2			RK73GB2A270J	CHIP R 27 J 1/10W	J1,J3
R3			RK73GB2A820J	CHIP R 82 J 1/10W	
R4			RK73GB2A150J	CHIP R 15 J 1/10W	
R5			RK73GB2A100J	CHIP R 10 J 1/10W	E2,E3,E4
R5			RK73GB2A100J	CHIP R 10 J 1/10W	E5
R5			RK73GB2A100J	CHIP R 10 J 1/10W	J,J2,K1
R5			RK73GB2A100J	CHIP R 10 J 1/10W	K2,K3,E1
R5			RK73GB2A270J	CHIP R 27 J 1/10W	J1,J3
R6			RK73GB2A390J	CHIP R 39 J 1/10W	E2,E3,E4
R6			RK73GB2A390J	CHIP R 39 J 1/10W	E5
R6			RK73GB2A390J	CHIP R 39 J 1/10W	J,J2,K1
R6			RK73GB2A390J	CHIP R 39 J 1/10W	K2,K3,E1
R6,7			RK73GB2A330J	CHIP R 33 J 1/10W	J1,J3
R7			RK73GB2A100J	CHIP R 10 J 1/10W	E2,E3,E4
R7			RK73GB2A100J	CHIP R 10 J 1/10W	E5
R7			RK73GB2A100J	CHIP R 10 J 1/10W	J,J2,K1
R7			RK73GB2A100J	CHIP R 10 J 1/10W	K2,K3,E1
R8			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R9			RK73GB2A152J	CHIP R 1.5K J 1/10W	
R10			RK73GB2A471J	CHIP R 470 J 1/10W	
R11			RK73GB2A270J	CHIP R 27 J 1/10W	
R12			RK73GB2A392J	CHIP R 3.9K J 1/10W	
R13			RK73GB2A100J	CHIP R 10 J 1/10W	
R14,15			RK73FB2B220J	CHIP R 22 J 1/8W	
R16			RK73GB2A221J	CHIP R 220 J 1/10W	
R17			RK73GB2A2R2J	CHIP R 2.2 J 1/10W	
R18			RK73FB2B220J	CHIP R 22 J 1/8W	
R19			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R20			RK73GB2A331J	CHIP R 330 J 1/10W	
R21			RK73GB2A472J	CHIP R 4.7K J 1/10W	

Ref. No.	Address	New parts	Parts No.	Description	Destination
R22			RK73FB2B000J	CHIP R 0.0 J 1/8W	
R23			RK73EB2E221J	CHIP R 220 J 1/4W	
R24			RK73FB2B100J	CHIP R 10 J 1/8W	E2,E3,E4
R24			RK73FB2B100J	CHIP R 10 J 1/8W	E5
R24			RK73FB2B100J	CHIP R 10 J 1/8W	J,J2,K1
R24			RK73FB2B100J	CHIP R 10 J 1/8W	K2,K3,E1
R25			RK73FB2B102J	CHIP R 1.0K J 1/8W	
R26			RK73PB2H100J	CHIP R 10 J 1/2W	
R29			RK73GB2A472J	CHIP R 4.7K J 1/10W	
R30		*	RK73SB3A151J	CHIP R 150 J 1W	
R31			RK73EB2E1R0J	CHIP R 1.0 J 1/4W	
R34,35			RK73FB2B152J	CHIP R 1.5K J 1/8W	
R36,37			R92-1279-05	CHIP R 33 J 1W	
R38		*	RK73SB3A470J	CHIP R 47 J 1W	
R39,40			R92-1279-05	CHIP R 33 J 1W	
R42		*	RK73SB3A470J	CHIP R 47 J 1W	
R43,44			RK73FB2B472J	CHIP R 4.7K J 1/8W	
R46-51			RK73EB2E1R0J	CHIP R 1.0 J 1/4W	
R52		*	RK73SB3A4R7J	CHIP R 4.7 J 1W	
R53,54			RK73FB2B102J	CHIP R 1.0K J 1/8W	
R58		*	RK73PB2H4R7J	CHIP R 4.7 J 1/2W	
R101,102			RK73GB2A331J	CHIP R 330 J 1/10W	
R103,104			RK73GB2A152J	CHIP R 1.5K J 1/10W	
R105,106			RK73FB2B221J	CHIP R 220 J 1/8W	
R107			RS14DB3F101J	FL-PROOF RS 100 J 3W	
R108,109			R92-1061-05	JUMPER REST 0 OHM	
R110			RK73GB2A000J	CHIP R 0.0 J 1/10W	
R201			RK73PB2H2R2J	CHIP R 2.2 J 1/2W	
R202			RK73GB2A472J	CHIP R 4.7K J 1/10W	
R203			RK73RB2H180J	CHIP R 18 J 1/2W	
R204			RK73GB2A472J	CHIP R 4.7K J 1/10W	
R205			RK73GB2A751J	CHIP R 750 J 1/10W	
R206			RK73GB2A223J	CHIP R 22K J 1/10W	
R207			RK73GB2A103J	CHIP R 10K J 1/10W	
R208			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R209			RK73GB2A333J	CHIP R 33K J 1/10W	
R211-214			RK73FB2B101J	CHIP R 100 J 1/8W	
R215			RK73RB2H2R2J	CHIP R 2.2 J 1/2W	
R216			RK73GB2A473J	CHIP R 47K J 1/10W	
R217			RK73GB2A562J	CHIP R 5.6K J 1/10W	
R905			RK73FB2B4R7J	CHIP R 4.7 J 1/8W	
R907		*	RK73FB2B3R9J	CHIP R 3.9 J 1/8W	
R910			RK73FB2B471J	CHIP R 470 J 1/8W	
R911		*	R92-3625-05	CHIP R 0.1 J 1/3W	
R912			RK73FB2B180J	CHIP R 18 J 1/8W	
R913			R92-1318-05	CHIP R 100 J 1W	
R914			RK73RB2H151J	CHIP R 150 J 1/2W	
R915			RK73GB2A121J	CHIP R 120 J 1/10W	
R916			RK73GB2A471J	CHIP R 470 J 1/10W	E2,E3,E4
R916			RK73GB2A471J	CHIP R 470 J 1/10W	E5
R916			RK73GB2A471J	CHIP R 470 J 1/10W	J,J2,K1
R916			RK73GB2A471J	CHIP R 470 J 1/10W	K2,K3,E1
R916,917			RK73GB2A101J	CHIP R 100 J 1/10W	J1,J3
R917			RK73GB2A101J	CHIP R 100 J 1/10W	E2,E3,E4
R917			RK73GB2A101J	CHIP R 100 J 1/10W	E5
R917			RK73GB2A101J	CHIP R 100 J 1/10W	J,J2,K1
R917			RK73GB2A101J	CHIP R 100 J 1/10W	K2,K3,E1
R918			RK73GB2A121J	CHIP R 120 J 1/10W	
R919			RK73GB2A272J	CHIP R 2.7K J 1/10W	E2,E3,E4
R919			RK73GB2A272J	CHIP R 2.7K J 1/10W	E5

J : TS-2000S J1 : TS-2000V J2 : TS-2000SX J3 : TS-2000VX
K1 : TS-2000 (K) K2 : TS-B2000 (K) K3 : TS-2000X (K)
E1 : TS-2000 (E) E2 : TS-B2000 (E) E3 : TS-2000 (E2) E4 : TS-B2000(E2) E5 : TS-2000X (E)

PARTS LIST

FINAL UNIT (X45-384X-XX)
FILTER UNIT (X51-3180-XX)

Ref. No.	Address	New parts	Parts No.	Description	Destination
R919			RK73GB2A272J	CHIP R 2.7K J 1/10W	J,J2,K1
R919			RK73GB2A272J	CHIP R 2.7K J 1/10W	K2,K3,E1
R919			RK73GB2A473J	CHIP R 47K J 1/10W	J1,J3
R920			RK73GB2A104J	CHIP R 100K J 1/10W	E2,E3,E4
R920			RK73GB2A104J	CHIP R 100K J 1/10W	E5
R920			RK73GB2A104J	CHIP R 100K J 1/10W	J,J2,K1
R920			RK73GB2A104J	CHIP R 100K J 1/10W	K2,K3,E1
R920			RK73GB2A563J	CHIP R 56K J 1/10W	J1,J3
R921			RK73GB2A333J	CHIP R 33K J 1/10W	J1,J3
R921			RK73GB2A683J	CHIP R 68K J 1/10W	E2,E3,E4
R921			RK73GB2A683J	CHIP R 68K J 1/10W	E5
R921			RK73GB2A683J	CHIP R 68K J 1/10W	J,J2,K1
R921			RK73GB2A683J	CHIP R 68K J 1/10W	K2,K3,E1
R922			RK73GB2A563J	CHIP R 56K J 1/10W	
R923,924			RK73GB2A473J	CHIP R 47K J 1/10W	
R925			RK73FB2B220J	CHIP R 22 J 1/8W	E2,E3,E4
R925			RK73FB2B220J	CHIP R 22 J 1/8W	E5
R925			RK73FB2B220J	CHIP R 22 J 1/8W	J,J2,K1
R925			RK73FB2B220J	CHIP R 22 J 1/8W	K2,K3,E1
R925			RK73FB2B270J	CHIP R 27 J 1/8W	J1,J3
R927			RK73FB2B470J	CHIP R 47 J 1/8W	J1,J3
R928-930			RK73GB2A222J	CHIP R 2.2K J 1/10W	
VR1-4			R12-6740-05	TRIMMING POT.(10K)	
VR101,102			R12-6740-05	TRIMMING POT.(10K)	
VR901,902			R12-6740-05	TRIMMING POT.(10K)	
K801,802			S76-0460-05	RELAY	
K803			S76-0415-05	RELAY	
K804,805			S76-0460-05	RELAY	
K806			S76-0415-05	RELAY	
K807,808			S76-0460-05	RELAY	
K809			S76-0415-05	RELAY	
K810,811			S76-0460-05	RELAY	
K812			S76-0415-05	RELAY	
K813,814			S76-0460-05	RELAY	
K815			S76-0415-05	RELAY	
K816,817			S76-0460-05	RELAY	
K818			S76-0415-05	RELAY	
K819,820			S76-0460-05	RELAY	
K821			S76-0415-05	RELAY	
K822,823			S76-0460-05	RELAY	
K824			S76-0415-05	RELAY	
D1			DAN235E	DIODE	
D2,3			DAN202U	DIODE	
D201			Z5W27V	SURGE ABSORBER	
D202			1SS355	DIODE	
D203			02CZ16(Y)F	ZENER DIODE	
D204			1SS355	DIODE	
D205-208			DAP202U	DIODE	
D801-824			1SS355	DIODE	
D901			DAN202U	DIODE	
D904,905			MA3J742	DIODE	
D906			MA4PH633	DIODE	
D908			L7091CER	DIODE	
D909			HVU131-E	DIODE	
IC201			TA7808FQ	ANALOGUE IC	
IC202			KIA7808API	MOS-IC	
IC203			TA7805FQ	MOS-IC	
IC204			BA10T	MOS-IC	
IC205			BU2099FV	MOS-IC	

Ref. No.	Address	New parts	Parts No.	Description	Destination
IC801-803			UPD6345GS-A	MOS-IC	
Q1			DTB143EK	DIGITAL TRANSISTOR	
Q2			KRC102S-P	DIGITAL TRANSISTOR	
Q3			2SK2596-E	FET	
Q4			KRC102S-P	DIGITAL TRANSISTOR	
Q5		✻	RD06HHF1-102	FET	
Q6		✻	RD16HHF1-102	FET	
Q7,8			RD100HHF1-102	FET	
Q101,102			RD70HVF1-101	FET	
Q201,202			DTD123EK	DIGITAL TRANSISTOR	
Q203,204			KRC102S-P	DIGITAL TRANSISTOR	
Q205-208			DTB143EK	DIGITAL TRANSISTOR	
Q209			KRC102S-P	DIGITAL TRANSISTOR	
Q210			IMD2A	TRANSISTOR	
Q211			DTB143EK	DIGITAL TRANSISTOR	
Q212			SI7445DP-E3	FET	
Q213-215			DTB143EK	DIGITAL TRANSISTOR	
Q216,217			DTA143EKA	DIGITAL TRANSISTOR	
Q218			IMD2A	TRANSISTOR	
Q219			DTB143EK	DIGITAL TRANSISTOR	
Q220,221			2SK1830F	FET	
Q901		✻	NESG260234	TRANSISTOR	
Q903		✻	PD55015S-E	FET	
Q905			RD60HUF1-101	FET	
TH1			NCP18XW153J0S	THERMISTOR	
TH101			NCP18XW153J0S	THERMISTOR	
TH901			NCP18XW153J0S	THERMISTOR	

FILTER UNIT (X51-3180-XX)
00 : J,J2,K,K2,K3,E1,E2,E3,E4,E5 01 : J1,J3

C2			CK73FB1H102K	CHIP C	1000PF	K
C3,4			CK73GB1H103K	CHIP C	0.010UF	K
C6			C93-0554-05	CHIP C	4.0PF	C
C7			CC73FCH1H470J	CHIP C	47PF	J
C9-14			CK73GB1H103K	CHIP C	0.010UF	K
C15			CK73GB1H102K	CHIP C	1000PF	K
C16			C93-0553-05	CHIP C	3.0PF	C
C17			CC73FCH1H560J	CHIP C	56PF	J
C18,19			CK73GB1H103K	CHIP C	0.010UF	K
C20			CK73FB1H102K	CHIP C	1000PF	K
C22			CD04AY1E470M	ELECTRO	47UF	25WV
C23,24			CK73GB1H103K	CHIP C	0.010UF	K
C25-27			CK73FB1H103K	CHIP C	0.010UF	K
C28,29			CC73GCH1H470J	CHIP C	47PF	J
C31			CC73FCH1H050B	CHIP C	5.0PF	B
C201			CM73F2H102J	CHIP C	1000PF	J
C202			CM73F2H561J	CHIP C	560PF	J
C203			CM73F2H102J	CHIP C	1000PF	J
C204			CM73F2H821J	CHIP C	820PF	J
C205			C93-0573-05	CHIP C	120PF	J
C206			CM73F2H102J	CHIP C	1000PF	J
C207			CK73FB1H103K	CHIP C	0.010UF	K
C208,209			C93-0570-05	CHIP C	68PF	J
C251			CM73F2H561J	CHIP C	560PF	J
C252			C93-0570-05	CHIP C	68PF	J
C253			CM73F2H102J	CHIP C	1000PF	J
C255			C93-0573-05	CHIP C	120PF	J

J : TS-2000S J1 : TS-2000V J2 : TS-2000SX J3 : TS-2000VX
K1 : TS-2000 (K) K2 : TS-B2000 (K) K3 : TS-2000X (K)
E1 : TS-2000 (E) E2 : TS-B2000 (E) E3 : TS-2000 (E2) E4 : TS-B2000(E2) E5 : TS-2000X (E)

If a part reference number is listed in a shaded box, that part does not come with the PCB.

PARTS LIST

FILTER UNIT (X51-3180-XX)

Ref. No.	Address	New parts	Parts No.	Description	Destination
C256			CM73F2H561J	CHIP C 560PF J	
C258			CK73FB1H103K	CHIP C 0.010UF K	
C261			C93-0568-05	CHIP C 47PF J	
C262,263			C93-0573-05	CHIP C 120PF J	
C301			CK73FB1H103K	CHIP C 0.010UF K	
C302			C93-0572-05	CHIP C 100PF J	
C303			CM73F2H101J	CHIP C 100PF J	
C304			C93-0570-05	CHIP C 68PF J	
C305			CM73F2H331J	CHIP C 330PF J	
C306			CM73F2H471J	CHIP C 470PF J	
C307			C93-0566-05	CHIP C 33PF J	
C308			CM73F2H331J	CHIP C 330PF J	
C309			CM73F2H151J	CHIP C 150PF J	
C310			CM73F2H151J	CHIP C 150PF J	
C351			CK73FB1H103K	CHIP C 0.010UF K	
C352			C93-0572-05	CHIP C 100PF J	
C353			C93-0568-05	CHIP C 47PF J	
C354			C93-0565-05	CHIP C 27PF J	
C355			C93-0553-05	CHIP C 3.0PF C	
C356,357			CM73F2H221J	CHIP C 220PF J	
C358			C93-0571-05	CHIP C 82PF J	
C359			C93-0562-05	CHIP C 15PF J	
C360			CM73F2H271J	CHIP C 270PF J	
C401			CK73FB1H103K	CHIP C 0.010UF K	
C404			C93-0572-05	CHIP C 100PF J	
C405			C93-0571-05	CHIP C 82PF J	
C406			C93-0569-05	CHIP C 56PF J	
C408			C93-0572-05	CHIP C 100PF J	
C409			C93-0571-05	CHIP C 82PF J	
C410			C93-0564-05	CHIP C 22PF J	
C411			C93-0571-05	CHIP C 82PF J	
C451			CK73FB1H103K	CHIP C 0.010UF K	
C452			C93-0568-05	CHIP C 47PF J	
C453			C93-0569-05	CHIP C 56PF J	
C454			C93-0573-05	CHIP C 120PF J	
C455			C93-0572-05	CHIP C 100PF J	
C456			C93-0564-05	CHIP C 22PF J	
C458,459			C93-0572-05	CHIP C 100PF J	
C460			C93-0570-05	CHIP C 68PF J	
C463			C93-0572-05	CHIP C 100PF J	
C464			C93-0568-05	CHIP C 47PF J	
C501			CK73FB1H103K	CHIP C 0.010UF K	
C502			C93-0569-05	CHIP C 56PF J	
C503			C93-0568-05	CHIP C 47PF J	
C504			C93-0555-05	CHIP C 5.0PF C	
C505			C93-0566-05	CHIP C 33PF J	
C506			C93-0572-05	CHIP C 100PF J	
C507			C93-0563-05	CHIP C 18PF J	
C509			C93-0571-05	CHIP C 82PF J	
C510			C93-0572-05	CHIP C 100PF J	
C511			C93-0558-05	CHIP C 8.0PF D	
C514			C93-0555-05	CHIP C 5.0PF C	
C515			C93-0571-05	CHIP C 82PF J	
C551			CK73FB1H103K	CHIP C 0.010UF K	
C552			C93-0567-05	CHIP C 39PF J	
C553			C93-0561-05	CHIP C 12PF J	
C555			C93-0571-05	CHIP C 82PF J	
C556			C93-0562-05	CHIP C 15PF J	
C557			C93-0554-05	CHIP C 4.0PF C	
C559			C93-0565-05	CHIP C 27PF J	

Ref. No.	Address	New parts	Parts No.	Description	Destination
C560			C93-0572-05	CHIP C 100PF J	
C561			C93-0554-05	CHIP C 4.0PF C	
C562			C93-0568-05	CHIP C 47PF J	
C600			CC73GCH1H060B	CHIP C 6.0PF B	
C601			C93-0558-05	CHIP C 8.0PF D	
C602			CK73FB1H102K	CHIP C 1000PF K	
C603			CC73FCH1H471J	CHIP C 470PF J	
C604			CK73FB1H102K	CHIP C 1000PF K	
C605			CC73FCH1H471J	CHIP C 470PF J	
C606			C93-0603-05	CHIP C 1000PF K	
C607			CK73FB1H102K	CHIP C 1000PF K	
C608			C93-0563-05	CHIP C 18PF J	
C609			CK73FB1H103K	CHIP C 0.010UF K	
C610			C93-0552-05	CHIP C 2.0PF C	
C611			C93-0603-05	CHIP C 1000PF K	
C612			C93-0564-05	CHIP C 22PF J	
C613			CK73FB1H102K	CHIP C 1000PF K	
C614			C93-0561-05	CHIP C 12PF J	
C615			C93-0565-05	CHIP C 27PF J	
C620			CC73GCH1H100D	CHIP C 10PF D	
C621			CK73FB1H102K	CHIP C 1000PF K	
C622			C93-0557-05	CHIP C 7.0PF D	
C623			C93-0565-05	CHIP C 27PF J	
C624			C93-0552-05	CHIP C 2.0PF C	
C625			C93-0564-05	CHIP C 22PF J	
TC1			C05-0370-05	CERAMIC TRIMMER CAP(20P)	
CN2,3			E23-1310-05	TEST TERMINAL	
CN4			E04-0154-05	PIN SOCKET	
CN5-8			E23-1310-05	TEST TERMINAL	
CN9			E41-1692-05	PIN ASSY	
CN10			E41-1690-05	PIN ASSY	
CN12,13			E04-0154-05	PIN SOCKET	
CN20			E04-0154-05	PIN SOCKET	
CN21			E04-0190-05	PIN SOCKET	
CN22			E23-1310-05	TEST TERMINAL	
-			L92-0104-05	TROIDAL CORE	
-			L92-0107-05	TROIDAL CORE	
-			L92-0108-05	TROIDAL CORE	
L1			L40-1021-12	SMALL FIXED INDUCTOR	
L2,3			L41-4705-33	SMALL FIXED INDUCTOR(47UH)	
L4			L39-0480-15	TOROIDAL COIL	
L5			L41-2221-48	SMALL FIXED INDUCTOR(2200UH)	
L6			L39-1442-05	TOROIDAL COIL	
L7			L41-4705-33	SMALL FIXED INDUCTOR(47UH)	
L8			L39-1443-05	TOROIDAL COIL	
L9-11			L41-4705-33	SMALL FIXED INDUCTOR(47UH)	
L12			L41-1885-32	SMALL FIXED INDUCTOR(0.18UH)	
L201			L41-4705-33	SMALL FIXED INDUCTOR(47UH)	
L202			L39-1259-05	TOROIDAL COIL	
L203			L39-1260-05	TOROIDAL COIL	
L251			L41-4705-33	SMALL FIXED INDUCTOR(47UH)	
L252			L39-1405-05	TOROIDAL COIL	
L253			L39-1225-05	TOROIDAL COIL	
L301			L41-4705-33	SMALL FIXED INDUCTOR(47UH)	
L302,303			L39-1457-05	TOROIDAL COIL	
L351			L41-4705-33	SMALL FIXED INDUCTOR(47UH)	
L352,353			L39-1221-05	TOROIDAL COIL	
L401			L41-4705-33	SMALL FIXED INDUCTOR(47UH)	
L402-404			L39-1456-05	TOROIDAL COIL	

J : TS-2000S J1 : TS-2000V J2 : TS-2000SX J3 : TS-2000VX
K1 : TS-2000 (K) K2 : TS-B2000 (K) K3 : TS-2000X (K)
E1 : TS-2000 (E) E2 : TS-B2000 (E) E3 : TS-2000 (E2) E4 : TS-B2000(E2) E5 : TS-2000X (E)

PARTS LIST

FILTER UNIT (X51-3180-XX)
TX-RX 1 UNIT (X57-605X-XX)

Ref. No.	Address	New parts	Parts No.	Description	Destination
L451			L41-4705-33	SMALL FIXED INDUCTOR(47UH)	
L452		*	L39-1519-05	TOROIDAL COIL	
L453,454			L34-1279-05	AIR-CORE COIL	
L501			L41-4705-33	SMALL FIXED INDUCTOR(47UH)	
L502			L34-4661-05	AIR-CORE COIL	
L503			L34-1281-05	AIR-CORE COIL	
L551			L41-4705-33	SMALL FIXED INDUCTOR(47UH)	
L552			L34-1359-05	AIR-CORE COIL	
L553,554			L34-4662-05	AIR-CORE COIL	
L601,602			L41-1095-33	SMALL FIXED INDUCTOR(1.0UH)	
L603			L34-1239-05	AIR-CORE COIL	
L604-606		*	L34-4882-05	AIR-CORE COIL	
L608			L41-3378-03	SMALL FIXED INDUCTOR(33NH)	
L609			L34-1088-05	AIR-CORE COIL	
R1,2			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R3,4			RK73FB2B101J	CHIP R 100 J 1/8W	
R5			RK73FB2B100J	CHIP R 10 J 1/8W	
R6,7			RK73GB2A104J	CHIP R 100K J 1/10W	
R8,9			RK73GB2A103J	CHIP R 10K J 1/10W	
R10,11			RK73GB2A152J	CHIP R 1.5K J 1/10W	
R12,13			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R14,15			RK73RB2H330J	CHIP R 33 J 1/2W	
R16,17			RK73GB2A105J	CHIP R 1.0M J 1/10W	
R18			RK73FB2B333J	CHIP R 33K J 1/8W	E2,E3,E4
R18			RK73FB2B333J	CHIP R 33K J 1/8W	E5
R18			RK73FB2B333J	CHIP R 33K J 1/8W	J,J2,K1
R18			RK73FB2B333J	CHIP R 33K J 1/8W	K2,K3,E1
R18			RK73FB2B472J	CHIP R 4.7K J 1/8W	J1,J3
R19			RK73GB2A103J	CHIP R 10K J 1/10W	
R20			RK73FB2B101J	CHIP R 100 J 1/8W	
R21			R92-1316-05	CHIP R 39 J 1W	
R22			RK73GB2A103J	CHIP R 10K J 1/10W	
R23,24			RK73FB2B101J	CHIP R 100 J 1/8W	
R25-28			RK73FB2B104J	CHIP R 100K J 1/8W	
R29			RK73GB2A274J	CHIP R 270K J 1/10W	
R451			RK73FB2B000J	CHIP R 0.0 J 1/8W	
R601			RK73FB2B680J	CHIP R 68 J 1/8W	
R602			RK73FB2B471J	CHIP R 470 J 1/8W	J1,J3
R602			RK73FB2B821J	CHIP R 820 J 1/8W	E2,E3,E4
R602			RK73FB2B821J	CHIP R 820 J 1/8W	E5
R602			RK73FB2B821J	CHIP R 820 J 1/8W	J,J2,K1
R602			RK73FB2B821J	CHIP R 820 J 1/8W	K2,K3,E1
R603			RK73FB2B681J	CHIP R 680 J 1/8W	
R604			RK73FB2B101J	CHIP R 100 J 1/8W	J1,J3
R604			RK73FB2B680J	CHIP R 68 J 1/8W	E2,E3,E4
R604			RK73FB2B680J	CHIP R 68 J 1/8W	E5
R604			RK73FB2B680J	CHIP R 68 J 1/8W	J,J2,K1
R604			RK73FB2B680J	CHIP R 68 J 1/8W	K2,K3,E1
R605			RS14DB3F820J	FL-PROOF RS 82 J 3W	
R610			RK73EB2E000J	CHIP R 0.0 J 1/4W	
VR1			R12-6730-05	TRIMMING POT.(220)	
VR2			R12-6742-05	TRIMMING POT.(22K)	
K1			S51-1429-05	RELAY	
K2,3			S76-0424-05	RELAY	
K201,202			S76-0423-05	RELAY	
K251,252			S76-0423-05	RELAY	
K301,302			S76-0423-05	RELAY	
K351,352			S76-0423-05	RELAY	
K401,402			S76-0423-05	RELAY	

Ref. No.	Address	New parts	Parts No.	Description	Destination
K451,452			S76-0423-05	RELAY	
K501,502			S51-1420-05	RELAY	
K551,552			S51-1420-05	RELAY	
D1,2			HSM88AS-E	DIODE	
D3,4			1SS348-F	DIODE	
D5-7			1SS355	DIODE	
D8,9			DSA301LA	DIODE	
D201			1SS355	DIODE	
D251			1SS355	DIODE	
D301			1SS355	DIODE	
D351			1SS355	DIODE	
D401			1SS355	DIODE	
D451			1SS355	DIODE	
D501			1SS355	DIODE	
D551			1SS355	DIODE	
D601,602			MA3J742	DIODE	
D603,604			L407CDB	DIODE(50V/1W)	
D605			MA4PH633	DIODE	
D606,607			HVU131-E	DIODE	
IC1,2			TC7SU04FU-F	MOS-IC	
IC3			TA75S393F-F	MOS-IC	
IC4			TC7WH74FU-F	MOS-IC	
Q1,2			2SK208-F(GR)	FET	

TX-RX 1 UNIT (X57-605X-XX) 0-00 : J,J2 0-01 : J1,J3 0-11 : K1,K3 0-12 : K2 2-71 : E1,E3,E5 2-72 : E2,E4

Ref. No.	Address	New parts	Parts No.	Description	Destination
D953,954			B30-2217-05	LED(Y)	E1,E3,E5
D953,954			B30-2217-05	LED(Y)	J,J1,J2
D953,954			B30-2217-05	LED(Y)	J3,K1,K3
D955			B30-2167-05	LED(GR)	E1,E3,E5
D955			B30-2167-05	LED(GR)	J,J1,J2
D955			B30-2167-05	LED(GR)	J3,K1,K3
D956			B30-2218-05	LED(OR)	E1,E3,E5
D956			B30-2218-05	LED(OR)	J,J1,J2
D956			B30-2218-05	LED(OR)	J3,K1,K3
D957			B30-2140-05	LED(Y)	E1,E3,E5
D957			B30-2140-05	LED(Y)	J,J1,J2
D957			B30-2140-05	LED(Y)	J3,K1,K3
D958			B30-2168-05	LED(RED)	K2,E2,E4
C950,951			CK73GB1H103K	CHIP C 0.010UF K	
C952-955			CK73EF1C105Z	CHIP C 1.0UF Z	E1,E3,E5
C952-955			CK73EF1C105Z	CHIP C 1.0UF Z	J,J1,J2
C952-955			CK73EF1C105Z	CHIP C 1.0UF Z	J3,K1,K3
C956-959			CK73GB1H103K	CHIP C 0.010UF K	
C962-965			CK73EF1C105Z	CHIP C 1.0UF Z	K2,E2,E4
C966			CK73GB1C104K	CHIP C 0.10UF K	K2,E2,E4
C967-969			CK73FB1C105K	CHIP C 1.0UF K	K2,E2,E4
C970		*	CD04AY1A101M	ELECTRO 100UF 10WV	
C971			CK73GB1A474K	CHIP C 0.47UF K	E1,E2,E3
C971			CK73GB1A474K	CHIP C 0.47UF K	E4,E5
C972			CK73FB1C105K	CHIP C 1.0UF K	K2,E2,E4
CN950			E41-1686-05	PIN ASSY	E1,E3,E5
CN950			E41-1686-05	PIN ASSY	J,J1,J2
CN950			E41-1686-05	PIN ASSY	J3,K1,K3
CN951			E41-1687-05	PIN ASSY	
CN952			E40-6074-05	FLAT CABLE CONNECTOR	E1,E3,E5

J : TS-2000S J1 : TS-2000V J2 : TS-2000SX J3 : TS-2000VX
K1 : TS-2000 (K) K2 : TS-B2000 (K) K3 : TS-2000X (K)
E1 : TS-2000 (E) E2 : TS-B2000 (E) E3 : TS-2000 (E2) E4 : TS-B2000(E2) E5 : TS-2000X (E)

PARTS LIST

TX-RX 1 UNIT (X57-605X-XX)
TX-RX 3 UNIT (UT-20) (X57-607X-XX)

Ref. No.	Address	New parts	Parts No.	Description	Desti-nation
CN952			E40-6074-05	FLAT CABLE CONNECTOR	J,J1,J2
CN952			E40-6074-05	FLAT CABLE CONNECTOR	J3,K1,K3
CN953			E40-6077-05	FLAT CABLE CONNECTOR	E1,E3,E5
CN953			E40-6077-05	FLAT CABLE CONNECTOR	J,J1,J2
CN953			E40-6077-05	FLAT CABLE CONNECTOR	J3,K1,K3
CN956		✻	E40-6610-05	PIN ASSY	E1,E3,E5
CN956		✻	E40-6610-05	PIN ASSY	J,J1,J2
CN956		✻	E40-6610-05	PIN ASSY	J3,K1,K3
CN957		✻	E40-6594-05	PIN ASSY	E1,E3,E5
CN957		✻	E40-6594-05	PIN ASSY	J,J1,J2
CN957		✻	E40-6594-05	PIN ASSY	J3,K1,K3
CN958			E41-1686-05	PIN ASSY	K2,E2,E4
CN959,960			E41-1682-05	PIN ASSY	K2,E2,E4
CN961			E41-1686-05	PIN ASSY	K2,E2,E4
CN962			E41-1684-05	PIN ASSY	E1,E3,E5
CN962			E41-1684-05	PIN ASSY	J,J1,J2
CN962			E41-1684-05	PIN ASSY	J3,K1,K3
CN963			E41-1683-05	PIN ASSY	E1,E3,E5
CN963			E41-1683-05	PIN ASSY	J,J1,J2
CN963			E41-1683-05	PIN ASSY	J3,K1,K3
J950		✻	E06-0858-25	MIC CONNECTOR(8P)	
J951			E11-0705-05	PHONE JACK(9P)	E1,E3,E5
J951			E11-0705-05	PHONE JACK(9P)	J,J1,J2
J951			E11-0705-05	PHONE JACK(9P)	J3,K1,K3
J952			E11-0705-05	PHONE JACK(9P)	K2,E2,E4
W901		✻	E37-1418-05	LEAD WIRE WITH CONNECTOR	E1,E3,E5
W901		✻	E37-1418-05	LEAD WIRE WITH CONNECTOR	J,J1,J2
W901		✻	E37-1418-05	LEAD WIRE WITH CONNECTOR	J3,K1,K3
R950,951			R92-1205-05	CHIP R 120 J 1/4W	E1,E3,E5
R950,951			R92-1205-05	CHIP R 120 J 1/4W	J,J1,J2
R950,951			R92-1205-05	CHIP R 120 J 1/4W	J3,K1,K3
R952-955			RK73FB2B470J	CHIP R 47 J 1/8W	
R956-960			RK73FB2B681J	CHIP R 680 J 1/8W	E1,E3,E5
R956-960			RK73FB2B681J	CHIP R 680 J 1/8W	J,J1,J2
R956-960			RK73FB2B681J	CHIP R 680 J 1/8W	J3,K1,K3
R970,971			R92-1205-05	CHIP R 120 J 1/4W	K2,E2,E4
R972			RK73FB2B151J	CHIP R 150 J 1/8W	K2,E2,E4
R973			RK73GB2A473J	CHIP R 47K J 1/10W	K2,E2,E4
R974			RK73GB2A474J	CHIP R 470K J 1/10W	K2,E2,E4
VR950			R31-0633-05	VARIABLE RESISTOR	E1,E3,E5
VR950			R31-0633-05	VARIABLE RESISTOR	J,J1,J2
VR950			R31-0633-05	VARIABLE RESISTOR	J3,K1,K3
VR951			R31-0637-05	VARIABLE RESISTOR	E1,E3,E5
VR951			R31-0637-05	VARIABLE RESISTOR	J,J1,J2
VR951			R31-0637-05	VARIABLE RESISTOR	J3,K1,K3
VR952			R31-0634-05	VARIABLE RESISTOR	E1,E3,E5
VR952			R31-0634-05	VARIABLE RESISTOR	J,J1,J2
VR952			R31-0634-05	VARIABLE RESISTOR	J3,K1,K3
S950			S70-0461-05	TACT SWITCH	K2,E2,E4
S951		✻	S70-0475-15	TACT SWITCH	K2,E2,E4
S902		✻	T99-0653-05	ENCODER	E1,E3,E5
S902		✻	T99-0653-05	ENCODER	J,J1,J2
S902		✻	T99-0653-05	ENCODER	J3,K1,K3
D950-952			1SS355	DIODE	
D959			1SS355	DIODE	K2,E2,E4
D960		✻	UDZW6.2(B)	ZENER DIODE	K2,E2,E4
Q951			2SC4617(R)	TRANSISTOR	K2,E2,E4

Ref. No.	Address	New parts	Parts No.	Description	Desti-nation
TX-RX 3 UNIT (UT-20) (X57-607X-XX) 0-00 : J2,J3,K3 2-71 : E5					
C1			CK73GB1H103K	CHIP C 0.010UF K	E5
C1			CK73GB1H103K	CHIP C 0.010UF K	J2,J3,K3
C4			CK73GB1H103K	CHIP C 0.010UF K	E5
C4			CK73GB1H103K	CHIP C 0.010UF K	J2,J3,K3
C5,6			CC73GCH1H100D	CHIP C 10PF D	E5
C5,6			CC73GCH1H100D	CHIP C 10PF D	J2,J3,K3
C7			CK73GB1H102K	CHIP C 1000PF K	E5
C7			CK73GB1H102K	CHIP C 1000PF K	J2,J3,K3
C8			CK73GB1H103K	CHIP C 0.010UF K	E5
C8			CK73GB1H103K	CHIP C 0.010UF K	J2,J3,K3
C9			CC73GCH1H100D	CHIP C 10PF D	E5
C9			CC73GCH1H100D	CHIP C 10PF D	J2,J3,K3
C10			CK73GB1H102K	CHIP C 1000PF K	E5
C10			CK73GB1H102K	CHIP C 1000PF K	J2,J3,K3
C11,12			CK73GB1H103K	CHIP C 0.010UF K	E5
C11,12			CK73GB1H103K	CHIP C 0.010UF K	J2,J3,K3
C13			CC73GCH1H050C	CHIP C 5.0PF C	E5
C13			CC73GCH1H050C	CHIP C 5.0PF C	J2,J3,K3
C14,15			CK73GB1H102K	CHIP C 1000PF K	E5
C14,15			CK73GB1H102K	CHIP C 1000PF K	J2,J3,K3
C16			CK73GB1H471K	CHIP C 470PF K	E5
C16			CK73GB1H471K	CHIP C 470PF K	J2,J3,K3
C17,18			CC73GCH1H470J	CHIP C 47PF J	E5
C17,18			CC73GCH1H470J	CHIP C 47PF J	J2,J3,K3
C19			CC73GCH1H060D	CHIP C 6.0PF D	E5
C19			CC73GCH1H060D	CHIP C 6.0PF D	J2,J3,K3
C20,21			CK73GB1H102K	CHIP C 1000PF K	E5
C20,21			CK73GB1H102K	CHIP C 1000PF K	J2,J3,K3
C22			CC73GCH1H470J	CHIP C 47PF J	E5
C22			CC73GCH1H470J	CHIP C 47PF J	J2,J3,K3
C23			CC73GCH1H040C	CHIP C 4.0PF C	E5
C23			CC73GCH1H040C	CHIP C 4.0PF C	J2,J3,K3
C24			CC73GCH1H220J	CHIP C 22PF J	E5
C24			CC73GCH1H220J	CHIP C 22PF J	J2,J3,K3
C25			CC73GCH1H470J	CHIP C 47PF J	E5
C25			CC73GCH1H470J	CHIP C 47PF J	J2,J3,K3
C26			CC73GCH1H030C	CHIP C 3.0PF C	E5
C26			CC73GCH1H030C	CHIP C 3.0PF C	J2,J3,K3
C27,28			CC73GCH1H470J	CHIP C 47PF J	E5
C27,28			CC73GCH1H470J	CHIP C 47PF J	J2,J3,K3
C29			CK73GB1H471K	CHIP C 470PF K	E5
C29			CK73GB1H471K	CHIP C 470PF K	J2,J3,K3
C30			CK73GB1H103K	CHIP C 0.010UF K	E5
C30			CK73GB1H103K	CHIP C 0.010UF K	J2,J3,K3
C31			CC73GCH1H101J	CHIP C 100PF J	E5
C31			CC73GCH1H101J	CHIP C 100PF J	J2,J3,K3
C32			CK73GB1H471K	CHIP C 470PF K	E5
C32			CK73GB1H471K	CHIP C 470PF K	J2,J3,K3
C33,34			CC73GCH1H470J	CHIP C 47PF J	E5
C33,34			CC73GCH1H470J	CHIP C 47PF J	J2,J3,K3
C35			CC73GCH1H101J	CHIP C 100PF J	E5
C35			CC73GCH1H101J	CHIP C 100PF J	J2,J3,K3
C36			CK73GB1C104K	CHIP C 0.10UF K	E5
C36			CK73GB1C104K	CHIP C 0.10UF K	J2,J3,K3
C37			CC73GCH1H030C	CHIP C 3.0PF C	E5
C37			CC73GCH1H030C	CHIP C 3.0PF C	J2,J3,K3
C39			CC73GCH1H101J	CHIP C 100PF J	E5

J : TS-2000S J1 : TS-2000V J2 : TS-2000SX J3 : TS-2000VX
K1 : TS-2000 (K) K2 : TS-B2000 (K) K3 : TS-2000X (K)
E1 : TS-2000 (E) E2 : TS-B2000 (E) E3 : TS-2000 (E2) E4 : TS-B2000(E2) E5 : TS-2000X (E)

PARTS LIST

TX-RX 3 UNIT (UT-20) (X57-607X-XX)

Ref. No.	Address	New parts	Parts No.	Description			Destination
C39			CC73GCH1H101J	CHIP C	100PF	J	J2,J3,K3
C40			CE32BM1E470M	CHIP EL	47UF	25WV	E5
C40			CE32BM1E470M	CHIP EL	47UF	25WV	J2,J3,K3
C43			CK73GB1H103K	CHIP C	0.010UF	K	E5
C43			CK73GB1H103K	CHIP C	0.010UF	K	J2,J3,K3
C44			CC73GCH1H1R5B	CHIP C	1.5PF	B	E5
C44			CC73GCH1H1R5B	CHIP C	1.5PF	B	J2,J3,K3
C45			CC73GCH1H470J	CHIP C	47PF	J	E5
C45			CC73GCH1H470J	CHIP C	47PF	J	J2,J3,K3
C46			CC73GCH1H1R5B	CHIP C	1.5PF	B	E5
C46			CC73GCH1H1R5B	CHIP C	1.5PF	B	J2,J3,K3
C50			CC73GCH1H101J	CHIP C	100PF	J	E5
C50			CC73GCH1H101J	CHIP C	100PF	J	J2,J3,K3
C51			CK73GB1H103K	CHIP C	0.010UF	K	E5
C51			CK73GB1H103K	CHIP C	0.010UF	K	J2,J3,K3
C52			CC73GCH1H101J	CHIP C	100PF	J	E5
C52			CC73GCH1H101J	CHIP C	100PF	J	J2,J3,K3
C53			CK73GB1H103K	CHIP C	0.010UF	K	E5
C53			CK73GB1H103K	CHIP C	0.010UF	K	J2,J3,K3
C56			CC73GCH1H470J	CHIP C	47PF	J	E5
C56			CC73GCH1H470J	CHIP C	47PF	J	J2,J3,K3
C57			CK73GB1H471K	CHIP C	470PF	K	E5
C57			CK73GB1H471K	CHIP C	470PF	K	J2,J3,K3
C59			CK73GB1H103K	CHIP C	0.010UF	K	E5
C59			CK73GB1H103K	CHIP C	0.010UF	K	J2,J3,K3
C60			CC73GCH1H101J	CHIP C	100PF	J	E5
C60			CC73GCH1H101J	CHIP C	100PF	J	J2,J3,K3
C61			CK73GB1H103K	CHIP C	0.010UF	K	E5
C61			CK73GB1H103K	CHIP C	0.010UF	K	J2,J3,K3
C62			CC73GCH1H101J	CHIP C	100PF	J	E5
C62			CC73GCH1H101J	CHIP C	100PF	J	J2,J3,K3
C63		*	C90-4135-05	ELECTRO	100UF	25WV	E5
C63		*	C90-4135-05	ELECTRO	100UF	25WV	J2,J3,K3
C64			CK73GB1H471K	CHIP C	470PF	K	E5
C64			CK73GB1H471K	CHIP C	470PF	K	J2,J3,K3
C65-67			CC73GCH1H470J	CHIP C	47PF	J	E5
C65-67			CC73GCH1H470J	CHIP C	47PF	J	J2,J3,K3
C68			CC73GCH1H100D	CHIP C	10PF	D	E5
C68			CC73GCH1H100D	CHIP C	10PF	D	J2,J3,K3
C69,70			CC73GCH1H470J	CHIP C	47PF	J	E5
C69,70			CC73GCH1H470J	CHIP C	47PF	J	J2,J3,K3
C71			CK73GB1H471K	CHIP C	470PF	K	E5
C71			CK73GB1H471K	CHIP C	470PF	K	J2,J3,K3
C72			CC73GCH1H470J	CHIP C	47PF	J	E5
C72			CC73GCH1H470J	CHIP C	47PF	J	J2,J3,K3
C74			CK73GB1H471K	CHIP C	470PF	K	E5
C74			CK73GB1H471K	CHIP C	470PF	K	J2,J3,K3
C75			CM73F2H470J	CHIP C	47PF	J	E5
C75			CM73F2H470J	CHIP C	47PF	J	J2,J3,K3
C76			CK73GB1H471K	CHIP C	470PF	K	E5
C76			CK73GB1H471K	CHIP C	470PF	K	J2,J3,K3
C78			CC73GCH1H470J	CHIP C	47PF	J	E5
C78			CC73GCH1H470J	CHIP C	47PF	J	J2,J3,K3
C79-83			CC73GCH1H101J	CHIP C	100PF	J	E5
C79-83			CC73GCH1H101J	CHIP C	100PF	J	J2,J3,K3
C84-90			CK73GB1H103K	CHIP C	0.010UF	K	E5
C84-90			CK73GB1H103K	CHIP C	0.010UF	K	J2,J3,K3
C91			CK73GB1H102K	CHIP C	1000PF	K	E5
C91			CK73GB1H102K	CHIP C	1000PF	K	J2,J3,K3
C92			CC73GCH1H070D	CHIP C	7.0PF	D	E5
C92			CC73GCH1H070D	CHIP C	7.0PF	D	J2,J3,K3
C93			CK73GB1H102K	CHIP C	1000PF	K	E5
C93			CK73GB1H102K	CHIP C	1000PF	K	J2,J3,K3
C94			CC73GCH1H050C	CHIP C	5.0PF	C	E5
C94			CC73GCH1H050C	CHIP C	5.0PF	C	J2,J3,K3
C95			CC73GCH1H010B	CHIP C	1.0PF	B	E5
C95			CC73GCH1H010B	CHIP C	1.0PF	B	J2,J3,K3
C96,97			CK73GB1H102K	CHIP C	1000PF	K	E5
C96,97			CK73GB1H102K	CHIP C	1000PF	K	J2,J3,K3
C98			CK73GB1C104K	CHIP C	0.10UF	K	E5
C98			CK73GB1C104K	CHIP C	0.10UF	K	J2,J3,K3
C99			CK73GB1H102K	CHIP C	1000PF	K	E5
C99			CK73GB1H102K	CHIP C	1000PF	K	J2,J3,K3
C101			CC73GCH1H020B	CHIP C	2.0PF	B	E5
C101			CC73GCH1H020B	CHIP C	2.0PF	B	J2,J3,K3
C103			CC73GCH1H010B	CHIP C	1.0PF	B	E5
C103			CC73GCH1H010B	CHIP C	1.0PF	B	J2,J3,K3
C104			CK73GB1H471K	CHIP C	470PF	K	E5
C104			CK73GB1H471K	CHIP C	470PF	K	J2,J3,K3
C105			CC73GCH1H470J	CHIP C	47PF	J	E5
C105			CC73GCH1H470J	CHIP C	47PF	J	J2,J3,K3
C106			CC73GCH1H060D	CHIP C	6.0PF	D	E5
C106			CC73GCH1H060D	CHIP C	6.0PF	D	J2,J3,K3
C107			CC73GCH1H470J	CHIP C	47PF	J	E5
C107			CC73GCH1H470J	CHIP C	47PF	J	J2,J3,K3
C108			CK73GB1H471K	CHIP C	470PF	K	E5
C108			CK73GB1H471K	CHIP C	470PF	K	J2,J3,K3
C110			CC73GCH1HR75B	CHIP C	0.75PF	B	E5
C110			CC73GCH1HR75B	CHIP C	0.75PF	B	J2,J3,K3
C111			CK73GB1H471K	CHIP C	470PF	K	E5
C111			CK73GB1H471K	CHIP C	470PF	K	J2,J3,K3
C112			CC73GCH1H101J	CHIP C	100PF	J	E5
C112			CC73GCH1H101J	CHIP C	100PF	J	J2,J3,K3
C113			CC73GCH1H020B	CHIP C	2.0PF	B	E5
C113			CC73GCH1H020B	CHIP C	2.0PF	B	J2,J3,K3
C114			CC73GCH1H220J	CHIP C	22PF	J	E5
C114			CC73GCH1H220J	CHIP C	22PF	J	J2,J3,K3
C116			CC73GCH1H040C	CHIP C	4.0PF	C	E5
C116			CC73GCH1H040C	CHIP C	4.0PF	C	J2,J3,K3
C117			CC73GCH1H470J	CHIP C	47PF	J	E5
C117			CC73GCH1H470J	CHIP C	47PF	J	J2,J3,K3
C118			CC73GCH1H101J	CHIP C	100PF	J	E5
C118			CC73GCH1H101J	CHIP C	100PF	J	J2,J3,K3
C119			CK73GB1H103K	CHIP C	0.010UF	K	E5
C119			CK73GB1H103K	CHIP C	0.010UF	K	J2,J3,K3
C120			CC73GCH1H470J	CHIP C	47PF	J	E5
C120			CC73GCH1H470J	CHIP C	47PF	J	J2,J3,K3
C121,122			CK73GB1H471K	CHIP C	470PF	K	E5
C121,122			CK73GB1H471K	CHIP C	470PF	K	J2,J3,K3
C123			CC73GCH1H470J	CHIP C	47PF	J	E5
C123			CC73GCH1H470J	CHIP C	47PF	J	J2,J3,K3
C124			CC73GCH1H070B	CHIP C	7.0PF	B	E5
C124			CC73GCH1H070B	CHIP C	7.0PF	B	J2,J3,K3
C125			CC73GCH1H1R5B	CHIP C	1.5PF	B	E5
C125			CC73GCH1H1R5B	CHIP C	1.5PF	B	J2,J3,K3
C126			CC73GCH1H080D	CHIP C	8.0PF	D	E5
C126			CC73GCH1H080D	CHIP C	8.0PF	D	J2,J3,K3
C127			CC73GCH1H010B	CHIP C	1.0PF	B	E5
C127			CC73GCH1H010B	CHIP C	1.0PF	B	J2,J3,K3
C128			CC73GCH1H1R5B	CHIP C	1.5PF	B	E5

J : TS-2000S J1 : TS-2000V J2 : TS-2000SX J3 : TS-2000VX
K1 : TS-2000 (K) K2 : TS-B2000 (K) K3 : TS-2000X (K)
E1 : TS-2000 (E) E2 : TS-B2000 (E) E3 : TS-2000 (E2) E4 : TS-B2000(E2) E5 : TS-2000X (E)

PARTS LIST

TX-RX 3 UNIT (UT-20) (X57-607X-XX)

Ref. No.	Address	New parts	Parts No.	Description			Destination
C128			CC73GCH1H1R5B	CHIP C	1.5PF	B	J2,J3,K3
C131-134			CC73GCH1H101J	CHIP C	100PF	J	E5
C131-134			CC73GCH1H101J	CHIP C	100PF	J	J2,J3,K3
C135			CC73GCH1H470J	CHIP C	47PF	J	E5
C135			CC73GCH1H470J	CHIP C	47PF	J	J2,J3,K3
C136			CK73GB1H103K	CHIP C	0.010UF	K	E5
C136			CK73GB1H103K	CHIP C	0.010UF	K	J2,J3,K3
C137		✻	CS77AC1C100M	CHIP TNL	100UF	10WV	E5
C137		✻	CS77AC1C100M	CHIP TNL	100UF	10WV	J2,J3,K3
C138			CK73GB1H103K	CHIP C	0.010UF	K	E5
C138			CK73GB1H103K	CHIP C	0.010UF	K	J2,J3,K3
C139,140			CK73GB1H102K	CHIP C	1000PF	K	E5
C139,140			CK73GB1H102K	CHIP C	1000PF	K	J2,J3,K3
C142			CC73GCH1H070D	CHIP C	7.0PF	D	E5
C142			CC73GCH1H070D	CHIP C	7.0PF	D	J2,J3,K3
C143			CK73GB1H102K	CHIP C	1000PF	K	E5
C143			CK73GB1H102K	CHIP C	1000PF	K	J2,J3,K3
C144			CC73GCH1H0R3B	CHIP C	0.3PF	B	E5
C144			CC73GCH1H0R3B	CHIP C	0.3PF	B	J2,J3,K3
C145			CC73GCH1H070D	CHIP C	7.0PF	D	E5
C145			CC73GCH1H070D	CHIP C	7.0PF	D	J2,J3,K3
C147		✻	CS77AC1C100M	CHIP TNL	100UF	10WV	E5
C147		✻	CS77AC1C100M	CHIP TNL	100UF	10WV	J2,J3,K3
C148			CK73GB1H103K	CHIP C	0.010UF	K	E5
C148			CK73GB1H103K	CHIP C	0.010UF	K	J2,J3,K3
C149			CK73GB1H102K	CHIP C	1000PF	K	E5
C149			CK73GB1H102K	CHIP C	1000PF	K	J2,J3,K3
C150			CC73GCH1H470J	CHIP C	47PF	J	E5
C150			CC73GCH1H470J	CHIP C	47PF	J	J2,J3,K3
C151			CK73GB1H103K	CHIP C	0.010UF	K	E5
C151			CK73GB1H103K	CHIP C	0.010UF	K	J2,J3,K3
C152			CK73GB1H102K	CHIP C	1000PF	K	E5
C152			CK73GB1H102K	CHIP C	1000PF	K	J2,J3,K3
C153			CC73GCH1H070D	CHIP C	7.0PF	D	E5
C153			CC73GCH1H070D	CHIP C	7.0PF	D	J2,J3,K3
C154			CK73GB1H102K	CHIP C	1000PF	K	E5
C154			CK73GB1H102K	CHIP C	1000PF	K	J2,J3,K3
C155,156			CK73GB1H103K	CHIP C	0.010UF	K	E5
C155,156			CK73GB1H103K	CHIP C	0.010UF	K	J2,J3,K3
C158			CC73GCH1H470J	CHIP C	47PF	J	E5
C158			CC73GCH1H470J	CHIP C	47PF	J	J2,J3,K3
C165		✻	C92-0910-05	CHIP-ELE	10UF	16WV	E5
C165		✻	C92-0910-05	CHIP-ELE	10UF	16WV	J2,J3,K3
C167			CK73GB1H102K	CHIP C	1000PF	K	E5
C167			CK73GB1H102K	CHIP C	1000PF	K	J2,J3,K3
C169			CK73GB1H471K	CHIP C	470PF	K	E5
C169			CK73GB1H471K	CHIP C	470PF	K	J2,J3,K3
C170,171			CK73GB1H102K	CHIP C	1000PF	K	E5
C170,171			CK73GB1H102K	CHIP C	1000PF	K	J2,J3,K3
C172			CK73GB1H103K	CHIP C	0.010UF	K	E5
C172			CK73GB1H103K	CHIP C	0.010UF	K	J2,J3,K3
C173			CK73GB1H102K	CHIP C	1000PF	K	E5
C173			CK73GB1H102K	CHIP C	1000PF	K	J2,J3,K3
C174			CK73GB1H471K	CHIP C	470PF	K	E5
C174			CK73GB1H471K	CHIP C	470PF	K	J2,J3,K3
C176			CE32BM1E470M	CHIP EL	47UF	25WV	E5
C176			CE32BM1E470M	CHIP EL	47UF	25WV	J2,J3,K3
C178			CK73GB1H102K	CHIP C	1000PF	K	E5
C178			CK73GB1H102K	CHIP C	1000PF	K	J2,J3,K3
C179		✻	C92-0910-05	CHIP-ELE	10UF	16WV	E5
C179		✻	C92-0910-05	CHIP-ELE	10UF	16WV	J2,J3,K3
C180			CK73GB1H102K	CHIP C	1000PF	K	E5
C180			CK73GB1H102K	CHIP C	1000PF	K	J2,J3,K3
C182			CC73GCH1H470J	CHIP C	47PF	J	E5
C182			CC73GCH1H470J	CHIP C	47PF	J	J2,J3,K3
C183			CK73GB1H471K	CHIP C	470PF	K	E5
C183			CK73GB1H471K	CHIP C	470PF	K	J2,J3,K3
C184,185			CC73GCH1H470J	CHIP C	47PF	J	E5
C184,185			CC73GCH1H470J	CHIP C	47PF	J	J2,J3,K3
C186			CK73GB1H471K	CHIP C	470PF	K	E5
C186			CK73GB1H471K	CHIP C	470PF	K	J2,J3,K3
C188			CC73GCH1H040C	CHIP C	4.0PF	C	E5
C188			CC73GCH1H040C	CHIP C	4.0PF	C	J2,J3,K3
C189			CC73GCH1H220J	CHIP C	22PF	J	E5
C189			CC73GCH1H220J	CHIP C	22PF	J	J2,J3,K3
C190			CC73GCH1H470J	CHIP C	47PF	J	E5
C190			CC73GCH1H470J	CHIP C	47PF	J	J2,J3,K3
C191			CC73GCH1H050C	CHIP C	5.0PF	C	E5
C191			CC73GCH1H050C	CHIP C	5.0PF	C	J2,J3,K3
C192			CK73GB1H471K	CHIP C	470PF	K	E5
C192			CK73GB1H471K	CHIP C	470PF	K	J2,J3,K3
C193			CC73GCH1H100D	CHIP C	10PF	D	E5
C193			CC73GCH1H100D	CHIP C	10PF	D	J2,J3,K3
C194			CK73GB1H103K	CHIP C	0.010UF	K	E5
C194			CK73GB1H103K	CHIP C	0.010UF	K	J2,J3,K3
C195			CC73GCH1H101J	CHIP C	100PF	J	E5
C195			CC73GCH1H101J	CHIP C	100PF	J	J2,J3,K3
C301			CK73GB1H471K	CHIP C	470PF	K	E5
C301			CK73GB1H471K	CHIP C	470PF	K	J2,J3,K3
C302,303			CC73GCH1H101J	CHIP C	100PF	J	E5
C302,303			CC73GCH1H101J	CHIP C	100PF	J	J2,J3,K3
C304			CC73GCH1H150J	CHIP C	15PF	J	E5
C304			CC73GCH1H150J	CHIP C	15PF	J	J2,J3,K3
C305			CK73GB1H102K	CHIP C	1000PF	K	E5
C305			CK73GB1H102K	CHIP C	1000PF	K	J2,J3,K3
C306			CC73GCH1H150J	CHIP C	15PF	J	E5
C306			CC73GCH1H150J	CHIP C	15PF	J	J2,J3,K3
C307			CC73GCH1H1R5B	CHIP C	1.5PF	B	E5
C307			CC73GCH1H1R5B	CHIP C	1.5PF	B	J2,J3,K3
C308			CK73GB1H471K	CHIP C	470PF	K	E5
C308			CK73GB1H471K	CHIP C	470PF	K	J2,J3,K3
C309			CC73GCH1H060D	CHIP C	6.0PF	D	E5
C309			CC73GCH1H060D	CHIP C	6.0PF	D	J2,J3,K3
C310			CC73GCH1H101J	CHIP C	100PF	J	E5
C310			CC73GCH1H101J	CHIP C	100PF	J	J2,J3,K3
C311			CC73GCH1H080D	CHIP C	8.0PF	D	E5
C311			CC73GCH1H080D	CHIP C	8.0PF	D	J2,J3,K3
C312			CC73GCH1H020B	CHIP C	2.0PF	B	E5
C312			CC73GCH1H020B	CHIP C	2.0PF	B	J2,J3,K3
C313			CC73GCH1H030C	CHIP C	3.0PF	C	E5
C313			CC73GCH1H030C	CHIP C	3.0PF	C	J2,J3,K3
C314			CC73GCH1H101J	CHIP C	100PF	J	E5
C314			CC73GCH1H101J	CHIP C	100PF	J	J2,J3,K3
C315			CC73GCH1H470J	CHIP C	47PF	J	E5
C315			CC73GCH1H470J	CHIP C	47PF	J	J2,J3,K3
C316			CC73GCH1H030C	CHIP C	3.0PF	C	E5
C316			CC73GCH1H030C	CHIP C	3.0PF	C	J2,J3,K3
C317,318			CC73GCH1H010B	CHIP C	1.0PF	B	E5
C317,318			CC73GCH1H010B	CHIP C	1.0PF	B	J2,J3,K3
C319			CC73GCH1H470J	CHIP C	47PF	J	E5

J : TS-2000S J1 : TS-2000V J2 : TS-2000SX J3 : TS-2000VX
K1 : TS-2000 (K) K2 : TS-B2000 (K) K3 : TS-2000X (K)
E1 : TS-2000 (E) E2 : TS-B2000 (E) E3 : TS-2000 (E2) E4 : TS-B2000(E2) E5 : TS-2000X (E)

PARTS LIST

TX-RX 3 UNIT (UT-20) (X57-607X-XX)

Ref. No.	Address	New parts	Parts No.	Description			Destination
C319			CC73GCH1H470J	CHIP C	47PF	J	J2,J3,K3
C320			C92-0920-05	CHIP-ELE	330UF	16WV	E5
C320			C92-0920-05	CHIP-ELE	330UF	16WV	J2,J3,K3
C323			CC73GCH1H470J	CHIP C	47PF	J	E5
C323			CC73GCH1H470J	CHIP C	47PF	J	J2,J3,K3
C326,327			CC73GCH1H470J	CHIP C	47PF	J	E5
C326,327			CC73GCH1H470J	CHIP C	47PF	J	J2,J3,K3
C328,329			CK73GB1H103K	CHIP C	0.010UF	K	E5
C328,329			CK73GB1H103K	CHIP C	0.010UF	K	J2,J3,K3
C332			CK73GB1C473K	CHIP C	0.047UF	K	E5
C332			CK73GB1C473K	CHIP C	0.047UF	K	J2,J3,K3
C333,334			CS77CA1A3R3M	CHIP TNTL	3.3UF	10WV	E5
C333,334			CS77CA1A3R3M	CHIP TNTL	3.3UF	10WV	J2,J3,K3
C335		✻	C92-0872-05	CHIP TNTL	0.068UF	35WV	E5
C335		✻	C92-0872-05	CHIP TNTL	0.068UF	35WV	J2,J3,K3
C336			CK73GB1H182K	CHIP C	1800PF	K	E5
C336			CK73GB1H182K	CHIP C	1800PF	K	J2,J3,K3
C367			CC73GCH1H101J	CHIP C	100PF	J	E5
C367			CC73GCH1H101J	CHIP C	100PF	J	J2,J3,K3
C368,369			CC73GCH1H020B	CHIP C	2.0PF	B	E5
C368,369			CC73GCH1H020B	CHIP C	2.0PF	B	J2,J3,K3
C370-374			CK73GB1H103K	CHIP C	0.010UF	K	E5
C370-374			CK73GB1H103K	CHIP C	0.010UF	K	J2,J3,K3
C377-379			CK73GB1H103K	CHIP C	0.010UF	K	E5
C377-379			CK73GB1H103K	CHIP C	0.010UF	K	J2,J3,K3
C380			CC73GCH1H270J	CHIP C	27PF	J	E5
C380			CC73GCH1H270J	CHIP C	27PF	J	J2,J3,K3
C381,382			CK73GB1H103K	CHIP C	0.010UF	K	E5
C381,382			CK73GB1H103K	CHIP C	0.010UF	K	J2,J3,K3
C383			CC73GCH1H080D	CHIP C	8.0PF	D	E5
C383			CC73GCH1H080D	CHIP C	8.0PF	D	J2,J3,K3
C384-386			CK73GB1H103K	CHIP C	0.010UF	K	E5
C384-386			CK73GB1H103K	CHIP C	0.010UF	K	J2,J3,K3
C387			CK73GB1C104K	CHIP C	0.10UF	K	E5
C387			CK73GB1C104K	CHIP C	0.10UF	K	J2,J3,K3
C388			CC73GCH1H330J	CHIP C	33PF	J	E5
C388			CC73GCH1H330J	CHIP C	33PF	J	J2,J3,K3
C389			CC73GCH1H050C	CHIP C	5.0PF	C	E5
C389			CC73GCH1H050C	CHIP C	5.0PF	C	J2,J3,K3
C390-393			CK73GB1H103K	CHIP C	0.010UF	K	E5
C390-393			CK73GB1H103K	CHIP C	0.010UF	K	J2,J3,K3
C394			CC73GCH1H010B	CHIP C	1.0PF	B	E5
C394			CC73GCH1H010B	CHIP C	1.0PF	B	J2,J3,K3
C395,396			CC73GCH1H180J	CHIP C	18PF	J	E5
C395,396			CC73GCH1H180J	CHIP C	18PF	J	J2,J3,K3
C397			CK73GB1H103K	CHIP C	0.010UF	K	E5
C397			CK73GB1H103K	CHIP C	0.010UF	K	J2,J3,K3
C398			CC73GCH1H330J	CHIP C	33PF	J	E5
C398			CC73GCH1H330J	CHIP C	33PF	J	J2,J3,K3
C399-401			CK73GB1H103K	CHIP C	0.010UF	K	E5
C399-401			CK73GB1H103K	CHIP C	0.010UF	K	J2,J3,K3
C402			CC73GCH1H010B	CHIP C	1.0PF	B	E5
C402			CC73GCH1H010B	CHIP C	1.0PF	B	J2,J3,K3
C403			CC73GCH1H030C	CHIP C	3.0PF	C	E5
C403			CC73GCH1H030C	CHIP C	3.0PF	C	J2,J3,K3
C404			CK73GB1H102K	CHIP C	1000PF	K	E5
C404			CK73GB1H102K	CHIP C	1000PF	K	J2,J3,K3
C409			CC73GCH1H010B	CHIP C	1.0PF	B	E5
C409			CC73GCH1H010B	CHIP C	1.0PF	B	J2,J3,K3
C500			CC73GCH1H470J	CHIP C	47PF	J	E5

Ref. No.	Address	New parts	Parts No.	Description	Destination
C500			CC73GCH1H470J	CHIP C 47PF J	J2,J3,K3
TC301			C05-0393-05	CERAMIC TRIMMER CAPACITOR(8P)	E5
TC301			C05-0393-05	CERAMIC TRIMMER CAPACITOR(8P)	J2,J3,K3
-			E23-0433-05	EARTH LUG	E5
-			E23-0433-05	EARTH LUG	J2,J3,K3
501	3B	✻	E30-3457-15	ANTENNA CABLE	E5
501	3B	✻	E30-3457-15	ANTENNA CABLE	J2,J3,K3
W4			E37-0885-15	LEAD WIRE WITH CONNECTOR(0.8D)	E5
W4			E37-0885-15	LEAD WIRE WITH CONNECTOR(0.8D)	J2,J3,K3
W2			E37-0894-05	LEAD WIRE WITH TERMINAL	E5
W2			E37-0894-05	LEAD WIRE WITH TERMINAL	J2,J3,K3
W3			E37-0895-05	LEAD WIRE WITH TERMINAL	E5
W3			E37-0895-05	LEAD WIRE WITH TERMINAL	J2,J3,K3
504	3C		E37-0943-05	LEAD WIRE WITH MINIPIN PLUG	E5
504	3C		E37-0943-05	LEAD WIRE WITH MINIPIN PLUG	J2,J3,K3
CN5			E40-6527-05	PIN ASSY	E5
CN5			E40-6527-05	PIN ASSY	J2,J3,K3
CN6			E40-5978-05	FLAT CABLE CONNECTOR	E5
CN6			E40-5978-05	FLAT CABLE CONNECTOR	J2,J3,K3
CN7,8			E04-0428-05	PIN SOCKET	E5
CN7,8			E04-0428-05	PIN SOCKET	J2,J3,K3
CN9			E04-0190-05	PIN SOCKET	E5
CN9			E04-0190-05	PIN SOCKET	J2,J3,K3
CN11-16			E04-0428-05	PIN SOCKET	E5
CN11-16			E04-0428-05	PIN SOCKET	J2,J3,K3
506	3C		F10-2368-03	SHIELDING PLATE	E5
506	3C		F10-2368-03	SHIELDING PLATE	J2,J3,K3
-			F10-2390-04	SHIELDING CASE	E5
-			F10-2390-04	SHIELDING CASE	J2,J3,K3
-			F10-2391-04	SHIELDING CASE	E5
-			F10-2391-04	SHIELDING CASE	J2,J3,K3
-			F10-2394-04	SHIELDING CASE	E5
-			F10-2394-04	SHIELDING CASE	J2,J3,K3
-			F10-2396-03	SHIELDING COVER(IC3)	E5
-			F10-2396-03	SHIELDING COVER(IC3)	J2,J3,K3
F1		✻	F53-0375-05	FUSE(0.5A 32V)	E5
F1		✻	F53-0375-05	FUSE(0.5A 32V)	J2,J3,K3
511	3C		G10-1218-04	FIBROUS SHEET	E5
511	3C		G10-1218-04	FIBROUS SHEET	J2,J3,K3
512	3B		J21-8401-04	MOUNTING HARDWARE	E5
512	3B		J21-8401-04	MOUNTING HARDWARE	J2,J3,K3
-			J61-0307-05	BAND	E5
-			J61-0307-05	BAND	J2,J3,K3
CF1,2			L72-1026-05	CERAMIC FILTER(8.4MHz)	E5
CF1,2			L72-1026-05	CERAMIC FILTER(8.4MHz)	J2,J3,K3
L2		✻	L34-4838-05	COIL	E5
L2		✻	L34-4838-05	COIL	J2,J3,K3
L3		✻	L34-4845-05	COIL	E5
L3		✻	L34-4845-05	COIL	J2,J3,K3
L4			L41-1005-39	SMALL FIXED INDUCTOR(10U)	E5
L4			L41-1005-39	SMALL FIXED INDUCTOR(10U)	J2,J3,K3
L5		✻	L34-4845-05	COIL	E5
L5		✻	L34-4845-05	COIL	J2,J3,K3
L6			L92-0403-05	CHIP FERRITE	E5
L6			L92-0403-05	CHIP FERRITE	J2,J3,K3
L7,8		✻	L39-1515-05	TOROIDAL COIL	E5
L7,8		✻	L39-1515-05	TOROIDAL COIL	J2,J3,K3
L9		✻	L34-4844-05	COIL	E5

J : TS-2000S J1 : TS-2000V J2 : TS-2000SX J3 : TS-2000VX
K1 : TS-2000 (K) K2 : TS-B2000 (K) K3 : TS-2000X (K)
E1 : TS-2000 (E) E2 : TS-B2000 (E) E3 : TS-2000 (E2) E4 : TS-B2000(E2) E5 : TS-2000X (E)

PARTS LIST

TX-RX 3 UNIT (UT-20) (X57-607X-XX)

Ref. No.	Address	New parts	Parts No.	Description	Desti-nation
L9		✻	L34-4844-05	COIL	J2,J3,K3
L10		✻	L79-1877-15	DIELECTRIC FILTER	E5
L10		✻	L79-1877-15	DIELECTRIC FILTER	J2,J3,K3
L11			L40-1075-92	SMALL FIXED INDUCTOR(10NH)	E5
L11			L40-1075-92	SMALL FIXED INDUCTOR(10NH)	J2,J3,K3
L12		✻	L79-1877-15	DIELECTRIC FILTER	E5
L12		✻	L79-1877-15	DIELECTRIC FILTER	J2,J3,K3
L13,14			L92-0403-05	CHIP FERRITE	E5
L13,14			L92-0403-05	CHIP FERRITE	J2,J3,K3
L15			L41-2775-33	SMALL FIXED INDUCTOR(0.027UH)	E5
L15			L41-2775-33	SMALL FIXED INDUCTOR(0.027UH)	J2,J3,K3
L16			L92-0443-05	CHIP FERRITE	E5
L16			L92-0443-05	CHIP FERRITE	J2,J3,K3
L17			L41-3375-33	SMALL FIXED INDUCTOR(0.033UH)	E5
L17			L41-3375-33	SMALL FIXED INDUCTOR(0.033UH)	J2,J3,K3
L18			L92-0443-05	CHIP FERRITE	E5
L18			L92-0443-05	CHIP FERRITE	J2,J3,K3
L19-21			L92-0403-05	CHIP FERRITE	E5
L19-21			L92-0403-05	CHIP FERRITE	J2,J3,K3
L22		✻	L34-4838-05	COIL	E5
L22		✻	L34-4838-05	COIL	J2,J3,K3
L23			L41-1005-39	SMALL FIXED INDUCTOR(10U)	E5
L23			L41-1005-39	SMALL FIXED INDUCTOR(10U)	J2,J3,K3
L24		✻	L34-4844-05	COIL	E5
L24		✻	L34-4844-05	COIL	J2,J3,K3
L25		✻	L34-4845-05	COIL	E5
L25		✻	L34-4845-05	COIL	J2,J3,K3
L26-28		✻	L34-4843-05	COIL	E5
L26-28		✻	L34-4843-05	COIL	J2,J3,K3
L29		✻	L34-4844-05	COIL	E5
L29		✻	L34-4844-05	COIL	J2,J3,K3
L30		✻	L79-1874-15	DIELECTRIC FILTER	E5
L30		✻	L79-1874-15	DIELECTRIC FILTER	J2,J3,K3
L31			L40-8265-92	SMALL FIXED INDUCTOR(8.2NH)	E5
L31			L40-8265-92	SMALL FIXED INDUCTOR(8.2NH)	J2,J3,K3
L32			L40-6865-92	SMALL FIXED INDUCTOR(6.8NH)	E5
L32			L40-6865-92	SMALL FIXED INDUCTOR(6.8NH)	J2,J3,K3
L33		✻	L79-1876-15	DIELECTRIC FILTER	E5
L33		✻	L79-1876-15	DIELECTRIC FILTER	J2,J3,K3
L34			L40-1075-92	SMALL FIXED INDUCTOR(10NH)	E5
L34			L40-1075-92	SMALL FIXED INDUCTOR(10NH)	J2,J3,K3
L35			L40-5663-92	SMALL FIXED INDUCTOR(5.6NH)	E5
L35			L40-5663-92	SMALL FIXED INDUCTOR(5.6NH)	J2,J3,K3
L36			L40-2263-92	SMALL FIXED INDUCTOR(2.2NH)	E5
L36			L40-2263-92	SMALL FIXED INDUCTOR(2.2NH)	J2,J3,K3
L37			L40-6865-92	SMALL FIXED INDUCTOR(6.8NH)	E5
L37			L40-6865-92	SMALL FIXED INDUCTOR(6.8NH)	J2,J3,K3
L38			L40-5663-92	SMALL FIXED INDUCTOR(5.6NH)	E5
L38			L40-5663-92	SMALL FIXED INDUCTOR(5.6NH)	J2,J3,K3
L40,41			L41-1005-39	SMALL FIXED INDUCTOR(10U)	E5
L40,41			L41-1005-39	SMALL FIXED INDUCTOR(10U)	J2,J3,K3
L42,43		✻	L34-4844-05	COIL	E5
L42,43		✻	L34-4844-05	COIL	J2,J3,K3
L44			L41-1005-39	SMALL FIXED INDUCTOR(10U)	E5
L44			L41-1005-39	SMALL FIXED INDUCTOR(10U)	J2,J3,K3
L45		✻	L34-4844-05	COIL	E5
L45		✻	L34-4844-05	COIL	J2,J3,K3
L49-51			L41-1005-39	SMALL FIXED INDUCTOR(10U)	E5
L49-51			L41-1005-39	SMALL FIXED INDUCTOR(10U)	J2,J3,K3
L52		✻	L79-1875-15	DIELECTRIC FILTER	E5
L52		✻	L79-1875-15	DIELECTRIC FILTER	J2,J3,K3
L301			L40-1085-92	SMALL FIXED INDUCTOR(100NH)	E5
L301			L40-1085-92	SMALL FIXED INDUCTOR(100NH)	J2,J3,K3
L302			L40-1278-60	SMALL FIXED INDUCTOR(12NH)	E5
L302			L40-1278-60	SMALL FIXED INDUCTOR(12NH)	J2,J3,K3
L303,304			L40-1085-92	SMALL FIXED INDUCTOR(100NH)	E5
L303,304			L40-1085-92	SMALL FIXED INDUCTOR(100NH)	J2,J3,K3
L305,306			L40-2275-92	SMALL FIXED INDUCTOR(22NH)	E5
L305,306			L40-2275-92	SMALL FIXED INDUCTOR(22NH)	J2,J3,K3
L307			L40-1875-92	SMALL FIXED INDUCTOR(18NH)	E5
L307			L40-1875-92	SMALL FIXED INDUCTOR(18NH)	J2,J3,K3
L308			L40-8265-92	SMALL FIXED INDUCTOR(8.2NH)	E5
L308			L40-8265-92	SMALL FIXED INDUCTOR(8.2NH)	J2,J3,K3
L309			L40-2275-92	SMALL FIXED INDUCTOR(22NH)	E5
L309			L40-2275-92	SMALL FIXED INDUCTOR(22NH)	J2,J3,K3
L310			L40-5663-92	SMALL FIXED INDUCTOR(5.6NH)	E5
L310			L40-5663-92	SMALL FIXED INDUCTOR(5.6NH)	J2,J3,K3
L312			L40-4763-92	SMALL FIXED INDUCTOR(4.7NH)	E5
L312			L40-4763-92	SMALL FIXED INDUCTOR(4.7NH)	J2,J3,K3
L315			L40-4763-92	SMALL FIXED INDUCTOR(4.7NH)	E5
L315			L40-4763-92	SMALL FIXED INDUCTOR(4.7NH)	J2,J3,K3
L318,319			L40-2275-92	SMALL FIXED INDUCTOR(22NH)	E5
L318,319			L40-2275-92	SMALL FIXED INDUCTOR(22NH)	J2,J3,K3
L320,321		✻	L34-4843-05	COIL	E5
L320,321		✻	L34-4843-05	COIL	J2,J3,K3
L322			L40-8265-92	SMALL FIXED INDUCTOR(8.2NH)	E5
L322			L40-8265-92	SMALL FIXED INDUCTOR(8.2NH)	J2,J3,K3
L323		✻	L41-1595-39	SMALL FIXED INDUCTOR(1.5U)	E5
L323		✻	L41-1595-39	SMALL FIXED INDUCTOR(1.5U)	J2,J3,K3
L336			L40-2285-92	SMALL FIXED INDUCTOR(220NH)	E5
L336			L40-2285-92	SMALL FIXED INDUCTOR(220NH)	J2,J3,K3
L337			L40-5663-92	SMALL FIXED INDUCTOR(5.6NH)	E5
L337			L40-5663-92	SMALL FIXED INDUCTOR(5.6NH)	J2,J3,K3
L338			L34-4817-05	COIL	E5
L338			L34-4817-05	COIL	J2,J3,K3
L339			L34-4826-05	COIL	E5
L339			L34-4826-05	COIL	J2,J3,K3
L340-342		✻	L34-4846-05	COIL	E5
L340-342		✻	L34-4846-05	COIL	J2,J3,K3
L343			L41-1005-33	SMALL FIXED INDUCTOR(10UH)	E5
L343			L41-1005-33	SMALL FIXED INDUCTOR(10UH)	J2,J3,K3
L344			L41-4705-39	SMALL FIXED INDUCTOR(47U)	E5
L344			L41-4705-39	SMALL FIXED INDUCTOR(47U)	J2,J3,K3
L345			L41-1005-33	SMALL FIXED INDUCTOR(10UH)	E5
L345			L41-1005-33	SMALL FIXED INDUCTOR(10UH)	J2,J3,K3
L346			L40-1085-92	SMALL FIXED INDUCTOR(100NH)	E5
L346			L40-1085-92	SMALL FIXED INDUCTOR(100NH)	J2,J3,K3
L347			L40-4763-92	SMALL FIXED INDUCTOR(4.7NH)	E5
L347			L40-4763-92	SMALL FIXED INDUCTOR(4.7NH)	J2,J3,K3
L348			L40-5663-92	SMALL FIXED INDUCTOR(5.6NH)	E5
L348			L40-5663-92	SMALL FIXED INDUCTOR(5.6NH)	J2,J3,K3
L349			L40-1875-92	SMALL FIXED INDUCTOR(18NH)	E5
L349			L40-1875-92	SMALL FIXED INDUCTOR(18NH)	J2,J3,K3
XF1		✻	L71-0575-15	MCF	E5
XF1		✻	L71-0575-15	MCF	J2,J3,K3
XF2			L71-0576-05	MCF	E5
XF2			L71-0576-05	MCF	J2,J3,K3
P	3C		N30-2606-48	PAN HEAD MACHINE SCREW	E5
P	3C		N30-2606-48	PAN HEAD MACHINE SCREW	J2,J3,K3

J : TS-2000S J1 : TS-2000V J2 : TS-2000SX J3 : TS-2000VX
K1 : TS-2000 (K) K2 : TS-B2000 (K) K3 : TS-2000X (K)
E1 : TS-2000 (E) E2 : TS-B2000 (E) E3 : TS-2000 (E2) E4 : TS-B2000(E2) E5 : TS-2000X (E)

PARTS LIST

TX-RX 3 UNIT (UT-20) (X57-607X-XX)

Ref. No.	Address	New parts	Parts No.	Description	Destination
-			N67-2608-48	PAN HEAD SEMS SCREW	E5
-			N67-2608-48	PAN HEAD SEMS SCREW	J2,J3,K3
R	3C		N87-2606-48	BRAZIER HEAD TAPTITE SCREW	E5
R	3C		N87-2606-48	BRAZIER HEAD TAPTITE SCREW	J2,J3,K3
CP1,2			RK74GB1J101J	CHIP-COM 100 J 1/16W	E5
CP1,2			RK74GB1J101J	CHIP-COM 100 J 1/16W	J2,J3,K3
R2,3			RK73GB2A102J	CHIP R 1.0K J 1/10W	E5
R2,3			RK73GB2A102J	CHIP R 1.0K J 1/10W	J2,J3,K3
R4			RK73GB2A103J	CHIP R 10K J 1/10W	E5
R4			RK73GB2A103J	CHIP R 10K J 1/10W	J2,J3,K3
R5			RK73GB2A273J	CHIP R 27K J 1/10W	E5
R5			RK73GB2A273J	CHIP R 27K J 1/10W	J2,J3,K3
R6			RK73GB2A100J	CHIP R 10 J 1/10W	E5
R6			RK73GB2A100J	CHIP R 10 J 1/10W	J2,J3,K3
R7			RK73GB2A102J	CHIP R 1.0K J 1/10W	E5
R7			RK73GB2A102J	CHIP R 1.0K J 1/10W	J2,J3,K3
R8,9			RK73GB2A680J	CHIP R 68 J 1/10W	E5
R8,9			RK73GB2A680J	CHIP R 68 J 1/10W	J2,J3,K3
R10			RK73GB2A103J	CHIP R 10K J 1/10W	E5
R10			RK73GB2A103J	CHIP R 10K J 1/10W	J2,J3,K3
R11			RK73GB2A273J	CHIP R 27K J 1/10W	E5
R11			RK73GB2A273J	CHIP R 27K J 1/10W	J2,J3,K3
R12,13			RK73GB2A330J	CHIP R 33 J 1/10W	E5
R12,13			RK73GB2A330J	CHIP R 33 J 1/10W	J2,J3,K3
R14,15			RK73GB2A331J	CHIP R 330 J 1/10W	E5
R14,15			RK73GB2A331J	CHIP R 330 J 1/10W	J2,J3,K3
R16			RK73GB2A101J	CHIP R 100 J 1/10W	E5
R16			RK73GB2A101J	CHIP R 100 J 1/10W	J2,J3,K3
R17			RK73GB2A271J	CHIP R 270 J 1/10W	E5
R17			RK73GB2A271J	CHIP R 270 J 1/10W	J2,J3,K3
R18			RK73GB2A180J	CHIP R 18 J 1/10W	E5
R18			RK73GB2A180J	CHIP R 18 J 1/10W	J2,J3,K3
R19			RK73GB2A271J	CHIP R 270 J 1/10W	E5
R19			RK73GB2A271J	CHIP R 270 J 1/10W	J2,J3,K3
R20			RK73GB2A471J	CHIP R 470 J 1/10W	E5
R20			RK73GB2A471J	CHIP R 470 J 1/10W	J2,J3,K3
R21			RK73GB2A271J	CHIP R 270 J 1/10W	E5
R21			RK73GB2A271J	CHIP R 270 J 1/10W	J2,J3,K3
R22			RK73GB2A272J	CHIP R 2.7K J 1/10W	E5
R22			RK73GB2A272J	CHIP R 2.7K J 1/10W	J2,J3,K3
R23			RK73GB2A180J	CHIP R 18 J 1/10W	E5
R23			RK73GB2A180J	CHIP R 18 J 1/10W	J2,J3,K3
R24			RK73GB2A472J	CHIP R 4.7K J 1/10W	E5
R24			RK73GB2A472J	CHIP R 4.7K J 1/10W	J2,J3,K3
R25			RK73GB2A271J	CHIP R 270 J 1/10W	E5
R25			RK73GB2A271J	CHIP R 270 J 1/10W	J2,J3,K3
R26			RK73GB2A330J	CHIP R 33 J 1/10W	E5
R26			RK73GB2A330J	CHIP R 33 J 1/10W	J2,J3,K3
R27			RK73GB2A222J	CHIP R 2.2K J 1/10W	E5
R27			RK73GB2A222J	CHIP R 2.2K J 1/10W	J2,J3,K3
R28			RK73GB2A101J	CHIP R 100 J 1/10W	E5
R28			RK73GB2A101J	CHIP R 100 J 1/10W	J2,J3,K3
R29			RK73GB2A151J	CHIP R 150 J 1/10W	E5
R29			RK73GB2A151J	CHIP R 150 J 1/10W	J2,J3,K3
R30			RK73GB2A390J	CHIP R 39 J 1/10W	E5
R30			RK73GB2A390J	CHIP R 39 J 1/10W	J2,J3,K3
R31			RK73GB2A151J	CHIP R 150 J 1/10W	E5
R31			RK73GB2A151J	CHIP R 150 J 1/10W	J2,J3,K3
R32			RK73GB2A101J	CHIP R 100 J 1/10W	E5
R32			RK73GB2A101J	CHIP R 100 J 1/10W	J2,J3,K3
R33			RK73GB2A181J	CHIP R 180 J 1/10W	E5
R33			RK73GB2A181J	CHIP R 180 J 1/10W	J2,J3,K3
R34			RK73GB2A000J	CHIP R 0.0 J 1/10W	E5
R34			RK73GB2A000J	CHIP R 0.0 J 1/10W	J2,J3,K3
R35			RK73GB2A680J	CHIP R 68 J 1/10W	E5
R35			RK73GB2A680J	CHIP R 68 J 1/10W	J2,J3,K3
R36			RK73GB2A121J	CHIP R 120 J 1/10W	E5
R36			RK73GB2A121J	CHIP R 120 J 1/10W	J2,J3,K3
R37			RK73GB2A152J	CHIP R 1.5K J 1/10W	E5
R37			RK73GB2A152J	CHIP R 1.5K J 1/10W	J2,J3,K3
R38,39			RK73GB2A470J	CHIP R 47 J 1/10W	E5
R38,39			RK73GB2A470J	CHIP R 47 J 1/10W	J2,J3,K3
R40			RK73GB2A151J	CHIP R 150 J 1/10W	E5
R40			RK73GB2A151J	CHIP R 150 J 1/10W	J2,J3,K3
R41			RK73GB2A390J	CHIP R 39 J 1/10W	E5
R41			RK73GB2A390J	CHIP R 39 J 1/10W	J2,J3,K3
R42			RK73GB2A151J	CHIP R 150 J 1/10W	E5
R42			RK73GB2A151J	CHIP R 150 J 1/10W	J2,J3,K3
R43			RK73GB2A331J	CHIP R 330 J 1/10W	E5
R43			RK73GB2A331J	CHIP R 330 J 1/10W	J2,J3,K3
R44		✻	RK73GB2A3R9J	CHIP R 3.9 J 1/10W	E5
R44		✻	RK73GB2A3R9J	CHIP R 3.9 J 1/10W	J2,J3,K3
R45			RK73GB2A182J	CHIP R 1.8K J 1/10W	E5
R45			RK73GB2A182J	CHIP R 1.8K J 1/10W	J2,J3,K3
R46			RK73GB2A152J	CHIP R 1.5K J 1/10W	E5
R46			RK73GB2A152J	CHIP R 1.5K J 1/10W	J2,J3,K3
R47,48			RK73GB2A182J	CHIP R 1.8K J 1/10W	E5
R47,48			RK73GB2A182J	CHIP R 1.8K J 1/10W	J2,J3,K3
R50		✻	RK73PB2H181J	CHIP R 180 J 1/2W	E5
R50		✻	RK73PB2H181J	CHIP R 180 J 1/2W	J2,J3,K3
R51			RK73GB2A101J	CHIP R 100 J 1/10W	E5
R51			RK73GB2A101J	CHIP R 100 J 1/10W	J2,J3,K3
R52			RK73GB2A821J	CHIP R 820 J 1/10W	E5
R52			RK73GB2A821J	CHIP R 820 J 1/10W	J2,J3,K3
R53			RK73GB2A332J	CHIP R 3.3K J 1/10W	E5
R53			RK73GB2A332J	CHIP R 3.3K J 1/10W	J2,J3,K3
R54			RK73GB2A101J	CHIP R 100 J 1/10W	E5
R54			RK73GB2A101J	CHIP R 100 J 1/10W	J2,J3,K3
R55			RK73GB2A682J	CHIP R 6.8K J 1/10W	E5
R55			RK73GB2A682J	CHIP R 6.8K J 1/10W	J2,J3,K3
R56			RK73GB2A680J	CHIP R 68 J 1/10W	E5
R56			RK73GB2A680J	CHIP R 68 J 1/10W	J2,J3,K3
R57,58			RK73GB2A222J	CHIP R 2.2K J 1/10W	E5
R57,58			RK73GB2A222J	CHIP R 2.2K J 1/10W	J2,J3,K3
R59			RK73GB2A000J	CHIP R 0.0 J 1/10W	E5
R59			RK73GB2A000J	CHIP R 0.0 J 1/10W	J2,J3,K3
R60			RK73GB2A332J	CHIP R 3.3K J 1/10W	E5
R60			RK73GB2A332J	CHIP R 3.3K J 1/10W	J2,J3,K3
R61			RK73GB2A000J	CHIP R 0.0 J 1/10W	E5
R61			RK73GB2A000J	CHIP R 0.0 J 1/10W	J2,J3,K3
R62,63			RK73GB2A102J	CHIP R 1.0K J 1/10W	E5
R62,63			RK73GB2A102J	CHIP R 1.0K J 1/10W	J2,J3,K3
R64			RK73GB2A101J	CHIP R 100 J 1/10W	E5
R64			RK73GB2A101J	CHIP R 100 J 1/10W	J2,J3,K3
R65			RK73GB2A471J	CHIP R 470 J 1/10W	E5
R65			RK73GB2A471J	CHIP R 470 J 1/10W	J2,J3,K3
R66			RK73GB2A474J	CHIP R 470K J 1/10W	E5
R66			RK73GB2A474J	CHIP R 470K J 1/10W	J2,J3,K3
R67			RK73GB2A823J	CHIP R 82K J 1/10W	E5

J : TS-2000S J1 : TS-2000V J2 : TS-2000SX J3 : TS-2000VX
K1 : TS-2000 (K) K2 : TS-B2000 (K) K3 : TS-2000X (K)
E1 : TS-2000 (E) E2 : TS-B2000 (E) E3 : TS-2000 (E2) E4 : TS-B2000(E2) E5 : TS-2000X (E)

PARTS LIST

TX-RX 3 UNIT (UT-20) (X57-607X-XX)

Ref. No.	Address	New parts	Parts No.	Description	Destination
R67			RK73GB2A823J	CHIP R 82K J 1/10W	J2,J3,K3
R68			RK73GB2A273J	CHIP R 27K J 1/10W	E5
R68			RK73GB2A273J	CHIP R 27K J 1/10W	J2,J3,K3
R70			RK73GB2A470J	CHIP R 47 J 1/10W	E5
R70			RK73GB2A470J	CHIP R 47 J 1/10W	J2,J3,K3
R71			RK73GB2A221J	CHIP R 220 J 1/10W	E5
R71			RK73GB2A221J	CHIP R 220 J 1/10W	J2,J3,K3
R72			RK73GB2A271J	CHIP R 270 J 1/10W	E5
R72			RK73GB2A271J	CHIP R 270 J 1/10W	J2,J3,K3
R73			RK73GB2A330J	CHIP R 33 J 1/10W	E5
R73			RK73GB2A330J	CHIP R 33 J 1/10W	J2,J3,K3
R74			RK73GB2A180J	CHIP R 18 J 1/10W	E5
R74			RK73GB2A180J	CHIP R 18 J 1/10W	J2,J3,K3
R75			RK73GB2A271J	CHIP R 270 J 1/10W	E5
R75			RK73GB2A271J	CHIP R 270 J 1/10W	J2,J3,K3
R76,77			RK73GB2A221J	CHIP R 220 J 1/10W	E5
R76,77			RK73GB2A221J	CHIP R 220 J 1/10W	J2,J3,K3
R78			RK73GB2A333J	CHIP R 33K J 1/10W	E5
R78			RK73GB2A333J	CHIP R 33K J 1/10W	J2,J3,K3
R79,80			RK73GB2A473J	CHIP R 47K J 1/10W	E5
R79,80			RK73GB2A473J	CHIP R 47K J 1/10W	J2,J3,K3
R81			RK73GB2A101J	CHIP R 100 J 1/10W	E5
R81			RK73GB2A101J	CHIP R 100 J 1/10W	J2,J3,K3
R82			RK73GB2A820J	CHIP R 82 J 1/10W	E5
R82			RK73GB2A820J	CHIP R 82 J 1/10W	J2,J3,K3
R83			RK73GB2A470J	CHIP R 47 J 1/10W	E5
R83			RK73GB2A470J	CHIP R 47 J 1/10W	J2,J3,K3
R85			RK73GB2A330J	CHIP R 33 J 1/10W	E5
R85			RK73GB2A330J	CHIP R 33 J 1/10W	J2,J3,K3
R86			RK73GB2A473J	CHIP R 47K J 1/10W	E5
R86			RK73GB2A473J	CHIP R 47K J 1/10W	J2,J3,K3
R87			RK73GB2A103J	CHIP R 10K J 1/10W	E5
R87			RK73GB2A103J	CHIP R 10K J 1/10W	J2,J3,K3
R88			RK73GB2A101J	CHIP R 100 J 1/10W	E5
R88			RK73GB2A101J	CHIP R 100 J 1/10W	J2,J3,K3
R89			RK73GB2A102J	CHIP R 1.0K J 1/10W	E5
R89			RK73GB2A102J	CHIP R 1.0K J 1/10W	J2,J3,K3
R90			RK73GB2A470J	CHIP R 47 J 1/10W	E5
R90			RK73GB2A470J	CHIP R 47 J 1/10W	J2,J3,K3
R91			RK73GB2A103J	CHIP R 10K J 1/10W	E5
R91			RK73GB2A103J	CHIP R 10K J 1/10W	J2,J3,K3
R92			RK73GB2A472J	CHIP R 4.7K J 1/10W	E5
R92			RK73GB2A472J	CHIP R 4.7K J 1/10W	J2,J3,K3
R93			RK73GB2A823J	CHIP R 82K J 1/10W	E5
R93			RK73GB2A823J	CHIP R 82K J 1/10W	J2,J3,K3
R94			RK73GB2A471J	CHIP R 470 J 1/10W	E5
R94			RK73GB2A471J	CHIP R 470 J 1/10W	J2,J3,K3
R95			RK73GB2A561J	CHIP R 560 J 1/10W	E5
R95			RK73GB2A561J	CHIP R 560 J 1/10W	J2,J3,K3
R96			RK73GB2A101J	CHIP R 100 J 1/10W	E5
R96			RK73GB2A101J	CHIP R 100 J 1/10W	J2,J3,K3
R97			RK73GB2A270J	CHIP R 27 J 1/10W	E5
R97			RK73GB2A270J	CHIP R 27 J 1/10W	J2,J3,K3
R98			RK73GB2A560J	CHIP R 56 J 1/10W	E5
R98			RK73GB2A560J	CHIP R 56 J 1/10W	J2,J3,K3
R99			RK73GB2A332J	CHIP R 3.3K J 1/10W	E5
R99			RK73GB2A332J	CHIP R 3.3K J 1/10W	J2,J3,K3
R100			RK73GB2A152J	CHIP R 1.5K J 1/10W	E5
R100			RK73GB2A152J	CHIP R 1.5K J 1/10W	J2,J3,K3
R101			RK73GB2A822J	CHIP R 8.2K J 1/10W	E5
R101			RK73GB2A822J	CHIP R 8.2K J 1/10W	J2,J3,K3
R102			RK73GB2A153J	CHIP R 15K J 1/10W	E5
R102			RK73GB2A153J	CHIP R 15K J 1/10W	J2,J3,K3
R103			RK73GB2A471J	CHIP R 470 J 1/10W	E5
R103			RK73GB2A471J	CHIP R 470 J 1/10W	J2,J3,K3
R104,105			RK73GB2A101J	CHIP R 100 J 1/10W	E5
R104,105			RK73GB2A101J	CHIP R 100 J 1/10W	J2,J3,K3
R106			RK73GB2A331J	CHIP R 330 J 1/10W	E5
R106			RK73GB2A331J	CHIP R 330 J 1/10W	J2,J3,K3
R108			RK73GB2A102J	CHIP R 1.0K J 1/10W	E5
R108			RK73GB2A102J	CHIP R 1.0K J 1/10W	J2,J3,K3
R110			RK73FB2B471J	CHIP R 470 J 1/8W	E5
R110			RK73FB2B471J	CHIP R 470 J 1/8W	J2,J3,K3
R111			RK73GB2A103J	CHIP R 10K J 1/10W	E5
R111			RK73GB2A103J	CHIP R 10K J 1/10W	J2,J3,K3
R112			RK73GB2A222J	CHIP R 2.2K J 1/10W	E5
R112			RK73GB2A222J	CHIP R 2.2K J 1/10W	J2,J3,K3
R113			RK73FB2B100J	CHIP R 10 J 1/8W	E5
R113			RK73FB2B100J	CHIP R 10 J 1/8W	J2,J3,K3
R115			RK73FB2B000J	CHIP R 0.0 J 1/8W	E5
R115			RK73FB2B000J	CHIP R 0.0 J 1/8W	J2,J3,K3
R117			RK73GB2A271J	CHIP R 270 J 1/10W	E5
R117			RK73GB2A271J	CHIP R 270 J 1/10W	J2,J3,K3
R118			RK73GB2A180J	CHIP R 18 J 1/10W	E5
R118			RK73GB2A180J	CHIP R 18 J 1/10W	J2,J3,K3
R119,120			RK73GB2A271J	CHIP R 270 J 1/10W	E5
R119,120			RK73GB2A271J	CHIP R 270 J 1/10W	J2,J3,K3
R121			RK73GB2A180J	CHIP R 18 J 1/10W	E5
R121			RK73GB2A180J	CHIP R 18 J 1/10W	J2,J3,K3
R122			RK73GB2A271J	CHIP R 270 J 1/10W	E5
R122			RK73GB2A271J	CHIP R 270 J 1/10W	J2,J3,K3
R123			RK73GB2A273J	CHIP R 27K J 1/10W	E5
R123			RK73GB2A273J	CHIP R 27K J 1/10W	J2,J3,K3
R124			RK73GB2A103J	CHIP R 10K J 1/10W	E5
R124			RK73GB2A103J	CHIP R 10K J 1/10W	J2,J3,K3
R125			RK73GB2A470J	CHIP R 47 J 1/10W	E5
R125			RK73GB2A470J	CHIP R 47 J 1/10W	J2,J3,K3
R126			RK73GB2A101J	CHIP R 100 J 1/10W	E5
R126			RK73GB2A101J	CHIP R 100 J 1/10W	J2,J3,K3
R127			RK73GB2A000J	CHIP R 0.0 J 1/10W	E5
R127			RK73GB2A000J	CHIP R 0.0 J 1/10W	J2,J3,K3
R130			RK73GB2A472J	CHIP R 4.7K J 1/10W	E5
R130			RK73GB2A472J	CHIP R 4.7K J 1/10W	J2,J3,K3
R131			RK73GB2A182J	CHIP R 1.8K J 1/10W	E5
R131			RK73GB2A182J	CHIP R 1.8K J 1/10W	J2,J3,K3
R132			RK73GB2A180J	CHIP R 18 J 1/10W	E5
R132			RK73GB2A180J	CHIP R 18 J 1/10W	J2,J3,K3
R133			RK73GB2A470J	CHIP R 47 J 1/10W	E5
R133			RK73GB2A470J	CHIP R 47 J 1/10W	J2,J3,K3
R134			RK73GB2A561J	CHIP R 560 J 1/10W	E5
R134			RK73GB2A561J	CHIP R 560 J 1/10W	J2,J3,K3
R135			RK73GB2A560J	CHIP R 56 J 1/10W	E5
R135			RK73GB2A560J	CHIP R 56 J 1/10W	J2,J3,K3
R140,141			RK73FB2B470J	CHIP R 47 J 1/8W	E5
R140,141			RK73FB2B470J	CHIP R 47 J 1/8W	J2,J3,K3
R301			RK73GB2A471J	CHIP R 470 J 1/10W	E5
R301			RK73GB2A471J	CHIP R 470 J 1/10W	J2,J3,K3
R302			RK73GB2A470J	CHIP R 47 J 1/10W	E5
R302			RK73GB2A470J	CHIP R 47 J 1/10W	J2,J3,K3
R303			RK73GB2A121J	CHIP R 120 J 1/10W	E5

J : TS-2000S J1 : TS-2000V J2 : TS-2000SX J3 : TS-2000VX
K1 : TS-2000 (K) K2 : TS-B2000 (K) K3 : TS-2000X (K)
E1 : TS-2000 (E) E2 : TS-B2000 (E) E3 : TS-2000 (E2) E4 : TS-B2000(E2) E5 : TS-2000X (E)

PARTS LIST

TX-RX 3 UNIT (UT-20) (X57-607X-XX)

Ref. No.	Address	New parts	Parts No.	Description	Destination
R303			RK73GB2A121J	CHIP R 120 J 1/10W	J2,J3,K3
R304			RK73GB2A100J	CHIP R 10 J 1/10W	E5
R304			RK73GB2A100J	CHIP R 10 J 1/10W	J2,J3,K3
R305			RK73GB2A103J	CHIP R 10K J 1/10W	E5
R305			RK73GB2A103J	CHIP R 10K J 1/10W	J2,J3,K3
R306			RK73GB2A332J	CHIP R 3.3K J 1/10W	E5
R306			RK73GB2A332J	CHIP R 3.3K J 1/10W	J2,J3,K3
R307			RK73GB2A470J	CHIP R 47 J 1/10W	E5
R307			RK73GB2A470J	CHIP R 47 J 1/10W	J2,J3,K3
R309,310			RK73GB2A000J	CHIP R 0.0 J 1/10W	E5
R309,310			RK73GB2A000J	CHIP R 0.0 J 1/10W	J2,J3,K3
R311			RK73GB2A331J	CHIP R 330 J 1/10W	E5
R311			RK73GB2A331J	CHIP R 330 J 1/10W	J2,J3,K3
R312			RK73GB2A823J	CHIP R 82K J 1/10W	E5
R312			RK73GB2A823J	CHIP R 82K J 1/10W	J2,J3,K3
R314,315			RK73GB2A000J	CHIP R 0.0 J 1/10W	E5
R314,315			RK73GB2A000J	CHIP R 0.0 J 1/10W	J2,J3,K3
R318			RK73GB2A102J	CHIP R 1.0K J 1/10W	E5
R318			RK73GB2A102J	CHIP R 1.0K J 1/10W	J2,J3,K3
R319			RK73GB2A823J	CHIP R 82K J 1/10W	E5
R319			RK73GB2A823J	CHIP R 82K J 1/10W	J2,J3,K3
R321			RK73GB2A101J	CHIP R 100 J 1/10W	E5
R321			RK73GB2A101J	CHIP R 100 J 1/10W	J2,J3,K3
R322			RK73GB2A821J	CHIP R 820 J 1/10W	E5
R322			RK73GB2A821J	CHIP R 820 J 1/10W	J2,J3,K3
R323			RK73GB2A220J	CHIP R 22 J 1/10W	E5
R323			RK73GB2A220J	CHIP R 22 J 1/10W	J2,J3,K3
R324			RK73GB2A101J	CHIP R 100 J 1/10W	E5
R324			RK73GB2A101J	CHIP R 100 J 1/10W	J2,J3,K3
R325			RK73GB2A182J	CHIP R 1.8K J 1/10W	E5
R325			RK73GB2A182J	CHIP R 1.8K J 1/10W	J2,J3,K3
R326			RK73GB2A222J	CHIP R 2.2K J 1/10W	E5
R326			RK73GB2A222J	CHIP R 2.2K J 1/10W	J2,J3,K3
R327,328			RK73GB2A000J	CHIP R 0.0 J 1/10W	E5
R327,328			RK73GB2A000J	CHIP R 0.0 J 1/10W	J2,J3,K3
R329			RK73GB2A474J	CHIP R 470K J 1/10W	E5
R329			RK73GB2A474J	CHIP R 470K J 1/10W	J2,J3,K3
R330			RK73GB2A222J	CHIP R 2.2K J 1/10W	E5
R330			RK73GB2A222J	CHIP R 2.2K J 1/10W	J2,J3,K3
R331			RK73GB2A103J	CHIP R 10K J 1/10W	E5
R331			RK73GB2A103J	CHIP R 10K J 1/10W	J2,J3,K3
R332			RK73GB2A000J	CHIP R 0.0 J 1/10W	E5
R332			RK73GB2A000J	CHIP R 0.0 J 1/10W	J2,J3,K3
R333			RK73GB2A103J	CHIP R 10K J 1/10W	E5
R333			RK73GB2A103J	CHIP R 10K J 1/10W	J2,J3,K3
R334			RK73GB2A392J	CHIP R 3.9K J 1/10W	E5
R334			RK73GB2A392J	CHIP R 3.9K J 1/10W	J2,J3,K3
R335			RK73GB2A000J	CHIP R 0.0 J 1/10W	E5
R335			RK73GB2A000J	CHIP R 0.0 J 1/10W	J2,J3,K3
R342			RK73GB2A000J	CHIP R 0.0 J 1/10W	E5
R342			RK73GB2A000J	CHIP R 0.0 J 1/10W	J2,J3,K3
R343			RK73GB2A331J	CHIP R 330 J 1/10W	E5
R343			RK73GB2A331J	CHIP R 330 J 1/10W	J2,J3,K3
R351			RK73GB2A000J	CHIP R 0.0 J 1/10W	E5
R351			RK73GB2A000J	CHIP R 0.0 J 1/10W	J2,J3,K3
R359			RK73GB2A101J	CHIP R 100 J 1/10W	E5
R359			RK73GB2A101J	CHIP R 100 J 1/10W	J2,J3,K3
R360			RK73GB2A153J	CHIP R 15K J 1/10W	E5
R360			RK73GB2A153J	CHIP R 15K J 1/10W	J2,J3,K3
R361			RK73GB2A682J	CHIP R 6.8K J 1/10W	E5
R361			RK73GB2A682J	CHIP R 6.8K J 1/10W	J2,J3,K3
R362			RK73GB2A101J	CHIP R 100 J 1/10W	E5
R362			RK73GB2A101J	CHIP R 100 J 1/10W	J2,J3,K3
R363			RK73GB2A151J	CHIP R 150 J 1/10W	E5
R363			RK73GB2A151J	CHIP R 150 J 1/10W	J2,J3,K3
R364			RK73GB2A101J	CHIP R 100 J 1/10W	E5
R364			RK73GB2A101J	CHIP R 100 J 1/10W	J2,J3,K3
R365			RK73GB2A223J	CHIP R 22K J 1/10W	E5
R365			RK73GB2A223J	CHIP R 22K J 1/10W	J2,J3,K3
R366			RK73GB2A822J	CHIP R 8.2K J 1/10W	E5
R366			RK73GB2A822J	CHIP R 8.2K J 1/10W	J2,J3,K3
R367			RK73GB2A221J	CHIP R 220 J 1/10W	E5
R367			RK73GB2A221J	CHIP R 220 J 1/10W	J2,J3,K3
R368			RK73GB2A000J	CHIP R 0.0 J 1/10W	E5
R368			RK73GB2A000J	CHIP R 0.0 J 1/10W	J2,J3,K3
R369			RK73GB2A330J	CHIP R 33 J 1/10W	E5
R369			RK73GB2A330J	CHIP R 33 J 1/10W	J2,J3,K3
R370			RK73GB2A183J	CHIP R 18K J 1/10W	E5
R370			RK73GB2A183J	CHIP R 18K J 1/10W	J2,J3,K3
R371-373			RK73GB2A330J	CHIP R 33 J 1/10W	E5
R371-373			RK73GB2A330J	CHIP R 33 J 1/10W	J2,J3,K3
R374			RK73GB2A222J	CHIP R 2.2K J 1/10W	E5
R374			RK73GB2A222J	CHIP R 2.2K J 1/10W	J2,J3,K3
R375			RK73GB2A101J	CHIP R 100 J 1/10W	E5
R375			RK73GB2A101J	CHIP R 100 J 1/10W	J2,J3,K3
R376			RK73GB2A153J	CHIP R 15K J 1/10W	E5
R376			RK73GB2A153J	CHIP R 15K J 1/10W	J2,J3,K3
R377			RK73GB2A682J	CHIP R 6.8K J 1/10W	E5
R377			RK73GB2A682J	CHIP R 6.8K J 1/10W	J2,J3,K3
R378			RK73GB2A151J	CHIP R 150 J 1/10W	E5
R378			RK73GB2A151J	CHIP R 150 J 1/10W	J2,J3,K3
R379			RK73GB2A101J	CHIP R 100 J 1/10W	E5
R379			RK73GB2A101J	CHIP R 100 J 1/10W	J2,J3,K3
R381			RK73GB2A000J	CHIP R 0.0 J 1/10W	E5
R381			RK73GB2A000J	CHIP R 0.0 J 1/10W	J2,J3,K3
R383			RK73GB2A102J	CHIP R 1.0K J 1/10W	E5
R383			RK73GB2A102J	CHIP R 1.0K J 1/10W	J2,J3,K3
R384			RK73GB2A470J	CHIP R 47 J 1/10W	E5
R384			RK73GB2A470J	CHIP R 47 J 1/10W	J2,J3,K3
R385,386			RK73GB2A103J	CHIP R 10K J 1/10W	E5
R385,386			RK73GB2A103J	CHIP R 10K J 1/10W	J2,J3,K3
R389			RK73GB2A181J	CHIP R 180 J 1/10W	E5
R389			RK73GB2A181J	CHIP R 180 J 1/10W	J2,J3,K3
R390			RK73GB2A270J	CHIP R 27 J 1/10W	E5
R390			RK73GB2A270J	CHIP R 27 J 1/10W	J2,J3,K3
R391			RK73GB2A181J	CHIP R 180 J 1/10W	E5
R391			RK73GB2A181J	CHIP R 180 J 1/10W	J2,J3,K3
R392			RK73GB2A681J	CHIP R 680 J 1/10W	E5
R392			RK73GB2A681J	CHIP R 680 J 1/10W	J2,J3,K3
R500,501			RK73FB2B000J	CHIP R 0.0 J 1/8W	E5
R500,501			RK73FB2B000J	CHIP R 0.0 J 1/8W	J2,J3,K3
R502			RD14BB2C152J	RD 1.5K J 1/6W	E5
R502			RD14BB2C152J	RD 1.5K J 1/6W	J2,J3,K3
VR1		✻	R32-0756-05	TRIMMING POT.(22K/8)	E5
VR1		✻	R32-0756-05	TRIMMING POT.(22K/8)	J2,J3,K3
VR2			R32-0767-05	TRIMMING POT.(1.0K/8)	E5
VR2			R32-0767-05	TRIMMING POT.(1.0K/8)	J2,J3,K3
D1			HSB88WS	DIODE	E5
D1			HSB88WS	DIODE	J2,J3,K3

J : TS-2000S J1 : TS-2000V J2 : TS-2000SX J3 : TS-2000VX
K1 : TS-2000 (K) K2 : TS-B2000 (K) K3 : TS-2000X (K)
E1 : TS-2000 (E) E2 : TS-B2000 (E) E3 : TS-2000 (E2) E4 : TS-B2000(E2) E5 : TS-2000X (E)

PARTS LIST

TX-RX 3 UNIT (UT-20) (X57-607X-XX)

Ref. No.	Address	New parts	Parts No.	Description	Desti-nation
D2			1SS355	DIODE	E5
D2			1SS355	DIODE	J2,J3,K3
D3,4		✻	HSM88ASR-E	DIODE	E5
D3,4		✻	HSM88ASR-E	DIODE	J2,J3,K3
D5-7		✻	L7091CER	DIODE	E5
D5-7		✻	L7091CER	DIODE	J2,J3,K3
D8			DAN235E	DIODE	E5
D8			DAN235E	DIODE	J2,J3,K3
D9			1SS355	DIODE	E5
D9			1SS355	DIODE	J2,J3,K3
D10,11			RN731V	DIODE	E5
D10,11			RN731V	DIODE	J2,J3,K3
D12,13			DAN202K	DIODE	E5
D12,13			DAN202K	DIODE	J2,J3,K3
D301			1SV283F	VARIABLE CAPACITANCE DIODE	E5
D301			1SV283F	VARIABLE CAPACITANCE DIODE	J2,J3,K3
D302		✻	UDZW4.7(B)	ZENER DIODE	E5
D302		✻	UDZW4.7(B)	ZENER DIODE	J2,J3,K3
D303		✻	L7091CER	DIODE	E5
D303		✻	L7091CER	DIODE	J2,J3,K3
D304			MA2S111-F	DIODE	E5
D304			MA2S111-F	DIODE	J2,J3,K3
D305			1SV283F	VARIABLE CAPACITANCE DIODE	E5
D305			1SV283F	VARIABLE CAPACITANCE DIODE	J2,J3,K3
D306			015AZ3.3(X)F	ZENER DIODE	E5
D306			015AZ3.3(X)F	ZENER DIODE	J2,J3,K3
IC1			UPC2709TB-A	IC(TX RF AMPLIFIER)	E5
IC1			UPC2709TB-A	IC(TX RF AMPLIFIER)	J2,J3,K3
IC3		✻	RA18H1213G-101	IC(FINAL POWER MODULE)	E5
IC3		✻	RA18H1213G-101	IC(FINAL POWER MODULE)	J2,J3,K3
IC4			AD9851BRS	MOS-IC(DDS)	J2,J3,K3
IC4		✻	AD9851BRSZ	MOS-IC(DDS)	E5
IC5			LMX2316TMX	MOS-IC(PLL)	E5
IC5			LMX2316TMX	MOS-IC(PLL)	J2,J3,K3
Q1,2			3SK131-A(M)	FET	E5
Q1,2			3SK131-A(M)	FET	J2,J3,K3
Q3			2SC3356-A	TRANSISTOR	E5
Q3			2SC3356-A	TRANSISTOR	J2,J3,K3
Q4			UMC4N	TRANSISTOR	E5
Q4			UMC4N	TRANSISTOR	J2,J3,K3
Q5			2SC4093-A	TRANSISTOR	E5
Q5			2SC4093-A	TRANSISTOR	J2,J3,K3
Q6		✻	NESG260234	TRANSISTOR	E5
Q6		✻	NESG260234	TRANSISTOR	J2,J3,K3
Q7,8			2SK520-A(K43)	FET	E5
Q7,8			2SK520-A(K43)	FET	J2,J3,K3
Q9			3SK131-A(M)	FET	E5
Q9			3SK131-A(M)	FET	J2,J3,K3
Q10			3SK320-FP	FET	E5
Q10			3SK320-FP	FET	J2,J3,K3
Q11		✻	2SC5008-T1-A	TRANSISTOR	E5
Q11		✻	2SC5008-T1-A	TRANSISTOR	J2,J3,K3
Q12		✻	NE34018	FET	E5
Q12		✻	NE34018	FET	J2,J3,K3
Q13			2SC4617(R)	TRANSISTOR	E5
Q13			2SC4617(R)	TRANSISTOR	J2,J3,K3
Q14,15			2SC5108(Y)F	TRANSISTOR	E5
Q14,15			2SC5108(Y)F	TRANSISTOR	J2,J3,K3
Q16,17			2SC4617(R)	TRANSISTOR	E5
Q16,17			2SC4617(R)	TRANSISTOR	J2,J3,K3
Q18			KRC102S-P	DIGITAL TRANSISTOR	E5
Q18			KRC102S-P	DIGITAL TRANSISTOR	J2,J3,K3
Q19			2SC3356-A	TRANSISTOR	E5
Q19			2SC3356-A	TRANSISTOR	J2,J3,K3
Q20			2SC3357-A	TRANSISTOR	E5
Q20			2SC3357-A	TRANSISTOR	J2,J3,K3
Q301			2SK508NV(K52)	FET	E5
Q301			2SK508NV(K52)	FET	J2,J3,K3
Q302			2SC5066-F(O)	TRANSISTOR	E5
Q302			2SC5066-F(O)	TRANSISTOR	J2,J3,K3
Q303,304			2SC4617(R)	TRANSISTOR	E5
Q303,304			2SC4617(R)	TRANSISTOR	J2,J3,K3
Q305-307			2SC3722K(R)	TRANSISTOR	E5
Q305-307			2SC3722K(R)	TRANSISTOR	J2,J3,K3
Q310-312			2SC4617(R)	TRANSISTOR	E5
Q310-312			2SC4617(R)	TRANSISTOR	J2,J3,K3
Q313,314			3SK131-A(M)	FET	E5
Q313,314			3SK131-A(M)	FET	J2,J3,K3
Q315			2SC4617(R)	TRANSISTOR	E5
Q315			2SC4617(R)	TRANSISTOR	J2,J3,K3
TH1			157-102-65001	THERMISTOR	E5
TH1			157-102-65001	THERMISTOR	J2,J3,K3
TH2			157-502-65001	THERMISTOR	E5
TH2			157-502-65001	THERMISTOR	J2,J3,K3
TH500			NCP18XW153J0S	THERMISTOR	E5
TH500			NCP18XW153J0S	THERMISTOR	J2,J3,K3

J : TS-2000S J1 : TS-2000V J2 : TS-2000SX J3 : TS-2000VX
K1 : TS-2000 (K) K2 : TS-B2000 (K) K3 : TS-2000X (K)
E1 : TS-2000 (E) E2 : TS-B2000 (E) E3 : TS-2000 (E2) E4 : TS-B2000(E2) E5 : TS-2000X (E)

ADJUSTMENT (K/E TYPE)

Transmitter Section

Item	Condition	Measurement			Adjustment			Specifications / Remarks
		Test-equipment	Unit	Terminal	Unit	Parts	Method	
1. Final idling current (HF/VHF)	1) Display f. : 14.100MHz Mode : USB Final unit (A/2) VR1, 2, 3, 4 : MIN Transmit	DC. A	Rear panel	DC	Final (A/2)		Check the default current (Io).	
						VR1	Io + 500mA = I_A	±50mA
						VR2	I_A + 1000mA = I_B	±100mA
						VR3	I_B + 700mA = I_C	±50mA
						VR4	I_C + 700mA	
	2) Display f. : 145.900MHz Mode : USB VR101, 102 : MIN Transmit					VR101	I_B + 2000mA = I_D	±100mA
						VR102	I_D + 2000mA	
2. 29.1MHz frequency	1) Display f. : 29.100MHz Mode : FM Transmit	f. counter	TX-RX1 (A/10)	CN14	TX-RX1 (A/10)	TC3	29.10000MHz	±20Hz
3. Final idling current (UHF)	1) Display f. : 430.000MHz Mode : USB Final unit (B/2) VR901, 902 : MIN Transmit	DC. A	Rear panel	DC	Final (B/2)		Check the default current (Io).	
						VR902	Io + 2500mA = I_E	±100mA
						VR901	I_E + 200mA	±20mA
4. TX BPF (VHF)	1) Display f. : 145.900MHz **K** 144.900MHz **E** Mode : CW Disconnect the cable from CN4 and insert a cable from the spectrum analyzer. Transmit After the adjustment, connect the cable to CN4.	Spectrum analyzer	TX-RX2 (A/11)	CN4	TX-RX2 (A/11)	TC12 TC13	IF output max.	
						TC14	229MHz spurious level min.	
• Perform the following in the adjustment mode. Item 5~8 and 12~28. To terminate the adjustment menu in the middle, save your settings with Menu No. 124.								
5. TX BPF (UHF)	1) Menu No. : 15 (Frequency : 435.1MHz) Disconnect the cable from CN3 and insert a cable from the spectrum analyzer. Transmit	Spectrum analyzer	TX-RX2 (A/11)	CN3	Front panel TX-RX2 (A/11)	[+] key or [–] key L90 L91 TC4 TC5 TC6 TC8 TC10	After setting the adjustment value to 131, adjust the trimmers and coils to have a maximum IF output.	8dBm or more
	2) Menu No. : 16 (Frequency : 420.1MHz) Transmit				Front panel	[+] key or [–] key	Output gain max.	6dBm or more
	3) Menu No. : 17 (Frequency : 439.99MHz) Transmit							
	4) Menu No. : 18 (Frequency : 449.9MHz) Transmit After the adjustment, connect the cable to CN3.							

ADJUSTMENT (K/E TYPE)

Item	Condition	Measurement			Adjustment			Specifications / Remarks
		Test-equipment	Unit	Terminal	Unit	Parts	Method	
6. ALC reference voltage	1) Menu No. : 00 (Frequency : 14.1MHz) Transmit	DC V.M	TX-RX1 (A/10)	TP3	Front panel	[+] key or [–] key	Set the adjustment value within the limit of the specified voltage.	2.7V±0.1V
7. TX IF gain (HF)	1) Menu No. : 78 (Frequency : 18.1MHz) Transmit	50Ω dummy Oscilloscope Spectrum analyzer		CN14	TX-RX1 (A/10)	L109 L108 L105 L103 L102 L100 L99 L98 L96	Drive output level max.	–6dBm or more
8. TX IF BPF (HF)	1) Menu No. : 19 (Frequency : 14.1MHz) Transmit				Front panel TX-RX1 (A/10)	[+] key or [–] key L100 L99 L98 L96 L102 VR3	Change the adjustment values to get the peak reading to a maximum output.	4dBm or more
9. TX mixer balance	1) Display f. : 50.100MHz Mode : CW Transmit				TX-RX1 (A/10)	VR2	68.985MHz spurious level min.	
10. Maximum power UHF VHF	This item was deleted due to a circuit modification.							
11. Null	1) Display f. : 14.1MHz Mode : CW Transmit	Power meter DC V.M Oscilloscope	Rear panel Final (A/2)	ANT1 CN19	Filter	TC1	VSR voltage min.	0.3V or less
12. Power frequency characteristic (HF)	1) Menu No. : 68 (Frequency : 14.1MHz) Transmit					VR1	Set it at the center position.	
					Front panel	[+] key or [–] key	Set the adjustment value within the limit of the specified power.	100W±3W
	2) Menu No. : 120 (Frequency : 51.99MHz) Transmit				Filter	VR1	100W	±3W
	3) Menu No. : 68 (Frequency : 14.1MHz) Transmit						Check	100W±5W

ADJUSTMENT (K/E TYPE)

Item	Condition	Measurement			Adjustment			Specifications / Remarks
		Test-equipment	Unit	Terminal	Unit	Parts	Method	
13. HF power POC 100W	1) Menu No. : 68 (Frequency : 14.1MHz) Transmit	Power meter	Rear panel	ANT1	Front panel	[+] key or [–] key	Set the adjustment value within the limit of the specified power.	100W±3W
50W	2) Menu No. : 69 Transmit							50W±2W
25W	3) Menu No. : 70 Transmit							25W±1W
10W	4) Menu No. : 71 Transmit							10W±0.5W
5W	5) Menu No. : 72 Transmit							5W±0.3W
14. Band TGC 1.8MHz	1) Menu No. : 73 (Frequency : 1.83MHz) Transmit							100W±3W
3.5MHz	2) Menu No. : 74 (Frequency : 3.51MHz) Transmit							
7.0MHz	3) Menu No. : 75 (Frequency : 7.01MHz) Transmit							
10MHz	4) Menu No. : 76 (Frequency : 10.1MHz) Transmit							
14MHz	5) Menu No. : 77 (Frequency : 14.1MHz) Transmit							
18MHz	6) Menu No. : 78 (Frequency : 18.1MHz) Transmit							
21MHz	7) Menu No. : 79 (Frequency : 21.1MHz) Transmit							
24MHz	8) Menu No. : 80 (Frequency : 24.9MHz) Transmit							
28MHz	9) Menu No. : 81 (Frequency : 28.1MHz) Transmit							
52MHz	10) Menu No. : 82 (Frequency : 50.1MHz) Transmit							
15. Power PGC 50W	1) Menu No. : 83 (Frequency : 14.1MHz) Transmit							50W±2W
25W	2) Menu No. : 84 Transmit							25W±1W
10W	3) Menu No. : 85 Transmit							10W±0.5W
5W	4) Menu No. : 86 Transmit							5W±0.3W

ADJUSTMENT (K/E TYPE)

Item	Condition	Measurement			Adjustment			Specifications / Remarks
		Test-equipment	Unit	Terminal	Unit	Parts	Method	
16. VHF power POC 100W	1) Menu No. : 91 (Frequency : 145.9MHz) Transmit	Power meter	Rear panel	ANT144	Front panel	[+] key or [–] key	Set the adjustment value within the limit of the specified power.	100W±3W
50W	2) Menu No. : 92 Transmit							50W±2W
25W	3) Menu No. : 93 Transmit							25W±1W
10W	4) Menu No. : 94 Transmit							10W±0.5W
5W	5) Menu No. : 95 Transmit							5W±0.3W
17. VHF band TGC	1) Menu No. : 96 (Frequency : 145.9MHz) Transmit							100W±3W
18. VHF power PGC 50W	1) Menu No. : 97 (Frequency : 145.9MHz) Transmit							50W±2W
25W	2) Menu No. : 98 Transmit							25W±1W
10W	3) Menu No. : 99 Transmit							10W±0.5W
5W	4) Menu No. : 100 Transmit							5W±0.3W
19. UHF power POC 50W	1) Menu No. : 101 (Frequency : 438.1MHz) Transmit			ANT430				50W±2W
25W	2) Menu No. : 102 Transmit							25W±1W
12.5W	3) Menu No. : 103 Transmit							12.5W±0.5W
5W	4) Menu No. : 104 Transmit							5W±0.3W
20. UHF band TGC	1) Menu No. : 105 (Frequency : 438.1MHz) Transmit							50W±2W
21. UHF power PGC 25W	1) Menu No. : 106 (Frequency : 438.1MHz) Transmit							25W±1W
12.5W	2) Menu No. : 107 Transmit							12.5W±0.5W
5W	3) Menu No. : 108 Transmit							5W±0.3W

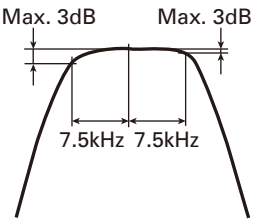
ADJUSTMENT (K/E TYPE)

Item	Condition	Measurement			Adjustment			Specifications / Remarks
		Test-equipment	Unit	Terminal	Unit	Parts	Method	
22. ALC meter start point	1) Menu No. : 87 (Frequency : 14.1MHz) Transmit	Power meter	Rear panel	ANT1	Front panel	[+] key	1 push	(ALC meter lights up to 1)
Zone max.	2) Menu No. : 88 Transmit							(ALC meter zone max.)
23. FM DEV Wide	1) Menu No. : 89 (Frequency : 29.1MHz) Transmit							4.3kHz±0.05kHz
Narrow	2) Menu No. : 90 Transmit							2.2kHz±0.05kHz
24. HF SWR protection	1) Menu No. : 118 (Frequency : 14.1MHz) Transmit 150Ω dummy connection : Use a cable that is 1m long	Through type power meter 150Ω dummy		ANT2		[+] key or [–] key	Set the adjustment value within the limit of the specified power.	40W±1W
25. SWR meter (SWR : 3)	1) Menu No. : 119 (Frequency : 14.1MHz) Transmit 150Ω dummy connection : Use a cable that is approx. 10cm long					[+] key	1 push	(SWR meter lights up to 3 level.)
26. 50MHz SWR meter (SWR : 3)	1) Menu No. : 120 (Frequency : 50.1MHz) Transmit							
27. VHF SWR protection	1) Menu No. : 121 (Frequency : 145.9MHz) ANT : Open Transmit	Ammeter		ANT144		[+] key or [–] key	Set the adjustment value within the limit of the specified current.	11A±0.25A
28. UHF SWR protection	1) Menu No. : 122 (Frequency : 438.1MHz) ANT : Open Transmit			ANT430				9.25A±0.25A
• Writing data : After items 5~8 and 12~28 have been adjusted; 1) Menu No. 124 2) [+] or [–] key : Push once time. Display "rEAdy" → "good" (If "nG" is displayed, enter data again.) 3) [CLR] key : Push once time.								
29. AT detection balance	1) Display f. : 51.990MHz Mode : CW Power : 10W Transmit	Oscilloscope Power meter	Filter Rear panel	TP1 (AMD) ANT1	Filter	VR2	Turn the VR2 to the point where the waveform on the oscilloscope changes from high to low. (Threshold point)	

1200MHz Unit Transmitter Section

Item	Condition	Measurement			Adjustment			Specifications / Remarks
		Test-equipment	Unit	Terminal	Unit	Parts	Method	
1. TX IF gain	1) Display f. : 1270.000MHz Mode : CW Carrier : 0 Transmit	Spectrum analyzer Power meter	Rear panel	ANT1.2G	TX-RX3		Set the carrier level at approx. 100mW.	
						L2 L3 L9	Power max.	

ADJUSTMENT (K/E TYPE)

Item	Condition	Measurement			Adjustment			Specifications / Remarks
		Test-equipment	Unit	Terminal	Unit	Parts	Method	
2. MCF (135.395MHz)	1) Disconnect the cable from CN5. Display f. : 1270.00MHz Mode : USB Tracking generator level : –10dBm Spectrum analyzer setting Center f. : 135.395MHz Frequency span : 50kHz XdB/DIV : 2dB RBW : 1kHz VBW : 1kHz Transmit Connect the cable to CN5.	Tracking generator Spectrum analyzer	TX-RX3	CN15 CN14	TX-RX3	L320 L321 L5	Adjust the coils to obtain the frequency response as shown.	
• Perform the following in the adjustment mode. Item 3~6. To terminate the adjustment menu in the middle, save your settings with Menu No. 124.								
3. 1.2G power POC 10W	1) Menu No. : 109 (Frequency : 1270.1MHz) Transmit	Power meter	Rear panel	ANT1.2G	Front panel	[+] key or [–] key	Set the adjustment value within the limit of the specified power.	10W±0.3W
5W	2) Menu No. : 110 Transmit							5W±0.2W
2.5W	3) Menu No. : 111 Transmit							2.5W±0.1W
1W	4) Menu No. : 112 Transmit							1W±0.1W
4. Band TGC 1240MHz	1) Menu No. : 113 (Frequency : 1240.1MHz) Mode : USB Transmit							10W±0.3W
1270MHz	2) Menu No. : 114 (Frequency : 1270.1MHz) Transmit							
1299MHz	3) Menu No. : 115 (Frequency : 1299.9MHz) Transmit							
5. 1.2G power PGC 2.5W	1) Menu No. : 116 (Frequency : 1270.1MHz) Transmit							2.5W±0.1W
1W	2) Menu No. : 117 Transmit							1W±0.1W
6. 1.2G protection	1) Menu No. : 123 (Frequency : 1270.1MHz) ANT : 50Ω dummy load Set the adjustment value to 0. Transmit	DC V.M	TX-RX1 (A/10)	CN27 (12VSR)			Check the default voltage (Vo).	0.1 to 1.0V
	2) Menu No. : 123 (Frequency : 1270.1MHz) ANT : Open Set the adjustment value to 100. Transmit					[+] key or [–] key	Set the adjustment value within the limit of the specified voltage.	Vo+(0.58 to 0.62V)
• Writing data : After items 3~6 have been adjusted; 1) Menu No. 124 2) [+] or [–] key : Push once time. Display "rEAdy" → "good" (If "nG" is displayed, enter data again.) 3) [CLR] key : Push once time.								

ADJUSTMENT (J TYPE)

Transmitter Section

Item	Condition	Measurement			Adjustment			Specifications / Remarks
		Test-equipment	Unit	Terminal	Unit	Parts	Method	
1. Final idling current (HF/VHF)	1) Display f. : 14.100MHz Mode : USB Final unit (A/2) VR1, 2, 3, 4 : MIN Transmit	DC. A	Rear panel	DC	Final (A/2)		Check the default current (Io).	
						VR1	Io + 500mA = I_A	±50mA
						VR2	I_A + 1000mA = I_B : S,SX I_A + 500mA = I_B : V,VX	±100mA
						VR3	I_B + 700mA = Ic	±50mA
						VR4	Ic + 700mA	
	2) Display f. : 145.900MHz Mode : USB VR101, 102 : MIN Transmit					VR101	I_B + 2000mA = I_D : S,SX I_B + 1000mA = I_D : V,VX	±100mA
						VR102	I_D + 2000mA : S,SX I_D + 1000mA : V,VX	
2. 29.1MHz frequency	1) Display f. : 29.100MHz Mode : FM Transmit	f. counter	TX-RX1 (A/10)	CN14	TX-RX1 (A/10)	TC3	29.10000MHz	±20Hz
3. Final idling current (UHF)	1) Display f. : 430.000MHz Mode : USB Final unit (B/2) VR901, 902 : MIN Transmit	DC. A	Rear panel	DC	Final (B/2)		Check the default current (Io).	
						VR902	Io + 2500mA = I_E : S,SX Io + 1500mA = I_E : V,VX	±100mA
						VR901	I_E + 200mA	±20mA
4. TX BPF (VHF)	1) Display f. : 144.900MHz Mode : CW Disconnect the cable from CN4 and insert a cable from the spectrum analyzer. Transmit After the adjustment, connect the cable to CN4.	Spectrum analyzer	TX-RX2 (A/11)	CN4	TX-RX2 (A/11)	TC12 TC13	IF output max.	
						TC14	229MHz spurious level min.	
• Perform the following in the adjustment mode. Item 5~8 and 12~28. To terminate the adjustment menu in the middle, save your settings with Menu No. 124.								
5. TX BPF (UHF)	1) Menu No. : 15 (Frequency : 435.1MHz) Disconnect the cable from CN3 and insert a cable from the spectrum analyzer. Transmit	Spectrum analyzer	TX-RX2 (A/11)	CN3	Front panel TX-RX2 (A/11)	[+] key or [–] key L90 L91 TC4 TC5 TC6 TC8 TC10	After setting the adjustment value to 131, adjust the trimmers and coils to have a maximum IF output.	8dBm or more
	2) Menu No. : 17 (Frequency : 439.99MHz) Transmit				Front panel	[+] key or [–] key	Output gain max.	6dBm or more

ADJUSTMENT (J TYPE)

Item	Condition	Measurement			Adjustment			Specifications / Remarks
		Test-equipment	Unit	Terminal	Unit	Parts	Method	
6. ALC reference voltage	1) Menu No. : 00 (Frequency : 14.1MHz) Transmit	DC V.M	TX-RX1 (A/10)	TP3	Front panel	[+] key or [–] key	Set the adjustment value within the limit of the specified voltage.	2.7V±0.1V
7. TX IF gain (HF)	1) Menu No. : 78 (Frequency : 18.1MHz) Transmit	50Ω dummy Oscilloscope Spectrum analyzer		CN14	TX-RX1 (A/9)	L109 L108 L105 L103 L102 L100 L99 L98 L96	Drive output level max.	–6dBm or more
8. TX IF BPF (HF)	1) Menu No. : 19 (Frequency : 14.1MHz) Transmit				Front panel TX-RX1 (A/10)	[+] key or [–] key L100 L99 L98 L96 L102 VR3	Change the adjustment values to get the peak reading to a maximum output.	4dBm or more
9. TX mixer balance	1) Display f. : 50.100MHz Mode : CW Transmit				TX-RX1 (A/10)	VR2	68.985MHz spurious level min.	
10. Maximum power UHF VHF	This item was deleted due to a circuit modification.							
11. Null	1) Display f. : 14.1MHz Mode : CW Transmit	Power meter DC V.M Oscilloscope	Rear panel Final (A/2)	ANT1 CN19	Filter	TC1	VSR voltage min.	0.3V or less : S,SX 0.2V or less : V,VX
12. Power frequency characteristic (HF)	1) Menu No. : 68 (Frequency : 14.1MHz) Transmit					VR1	Set it at the center position.	
					Front panel	[+] key or [–] key	Set the adjustment value within the limit of the specified power.	100W±3W : S,SX 20W±1W : V,VX
	2) Menu No. : 120 (Frequency : 51.99MHz) Transmit				Filter	VR1	100W : S,SX 20W : V,VX	±3W : S,SX ±1W : V,VX
	3) Menu No. : 68 (Frequency : 14.1MHz) Transmit						Check	100W±5W : S,SX 20W±1W : V,VX

ADJUSTMENT (J TYPE)

Item	Condition	Measurement			Adjustment			Specifications / Remarks
		Test-equipment	Unit	Terminal	Unit	Parts	Method	
13. HF power POC 100W/20W	1) Menu No. : 68 (Frequency : 14.1MHz) Transmit	Power meter	Rear panel	ANT1	Front panel	[+] key or [–] key	Set the adjustment value within the limit of the specified power.	100W±3W : S,SX 20W±1W : V,VX
50W/10W	2) Menu No. : 69 Transmit							50W±2W : S,SX 10W±0.5W : V,VX
25W/5W	3) Menu No. : 70 Transmit							25W±1W : S,SX 5W±0.5W : V,VX
10W/2W	4) Menu No. : 71 Transmit							10W±0.5W : S,SX 2W±0.3W : V,VX
5W/1W	5) Menu No. : 72 Transmit							5W±0.3W : S,SX 1W±0.1W : V,VX
14. Band TGC 1.8MHz	1) Menu No. : 73 (Frequency : 1.83MHz) Transmit							100W±3W : S,SX 20W±1W : V,VX
3.5MHz	2) Menu No. : 74 (Frequency : 3.51MHz) Transmit							
7.0MHz	3) Menu No. : 75 (Frequency : 7.01MHz) Transmit							
10MHz	4) Menu No. : 76 (Frequency : 10.1MHz) Transmit							
14MHz	5) Menu No. : 77 (Frequency : 14.1MHz) Transmit							
18MHz	6) Menu No. : 78 (Frequency : 18.1MHz) Transmit							
21MHz	7) Menu No. : 79 (Frequency : 21.1MHz) Transmit							
24MHz	8) Menu No. : 80 (Frequency : 24.9MHz) Transmit							
28MHz	9) Menu No. : 81 (Frequency : 28.1MHz) Transmit							
52MHz	10) Menu No. : 82 (Frequency : 50.1MHz) Transmit							
15. Power PGC 50W/10W	1) Menu No. : 83 (Frequency : 14.1MHz) Transmit							50W±2W : S,SX 12.5W±0.5W : V,VX
25W/5W	2) Menu No. : 84 Transmit							25W±1W : S,SX 6.3W±0.5W : V,VX
10W/2W	3) Menu No. : 85 Transmit							10W±0.5W : S,SX 2.5W±0.3W : V,VX
5W/1W	4) Menu No. : 86 Transmit							5W±0.3W : S,SX 1.3W±0.1W : V,VX

ADJUSTMENT (J TYPE)

Item	Condition	Measurement			Adjustment			Specifications / Remarks
		Test-equipment	Unit	Terminal	Unit	Parts	Method	
16. VHF power POC 100W/20W	1) Menu No. : 91 (Frequency : 145.9MHz) Transmit	Power meter	Rear panel	ANT144	Front panel	[+] key or [–] key	Set the adjustment value within the limit of the specified power.	100W±3W : S,SX 20W±1W : V,VX
50W/10W	2) Menu No. : 92 Transmit							50W±2W : S,SX 10W±0.5W : V,VX
25W/5W	3) Menu No. : 93 Transmit							25W±1W : S,SX 5W±0.5W : V,VX
10W/2W	4) Menu No. : 94 Transmit							10W±0.5W : S,SX 2W±0.3W : V,VX
5W/1W	5) Menu No. : 95 Transmit							5W±0.3W : S,SX 1W±0.1W : V,VX
17. VHF band TGC	1) Menu No. : 96 (Frequency : 145.9MHz) Transmit							100W±3W : S,SX 20W±1W : V,VX
18. VHF power PGC 50W/10W	1) Menu No. : 97 (Frequency : 145.9MHz) Transmit							50W±2W : S,SX 12.5W±0.5W : V,VX
25W/5W	2) Menu No. : 98 Transmit							25W±1W : S,SX 6.3W±0.5W : V,VX
10W/2W	3) Menu No. : 99 Transmit							10W±0.5W : S,SX 2.5W±0.3W : V,VX
5W/1W	4) Menu No. : 100 Transmit							5W±0.3W : S,SX 1.3W±0.1W : V,VX
19. UHF power POC 50W/20W	1) Menu No. : 101 (Frequency : 438.1MHz) Transmit			ANT430				50W±2W : S,SX 20W±1W : V,VX
25W/10W	2) Menu No. : 102 Transmit							25W±1W : S,SX 10W±0.5W : V,VX
12.5W/5W	3) Menu No. : 103 Transmit							12.5W±0.5W : S,SX 5W±0.5W : V,VX
5W/1W	4) Menu No. : 104 Transmit							5W±0.3W : S,SX 1W±0.1W : V,VX
20. UHF band TGC	1) Menu No. : 105 (Frequency : 438.1MHz) Transmit							50W±2W : S,SX 20W±1W : V,VX
21. UHF power PGC 25W/10W	1) Menu No. : 106 (Frequency : 438.1MHz) Transmit							25W±1W : S,SX 12.5W±1W : V,VX
12.5W/5W	2) Menu No. : 107 Transmit							12.5W±1W : S,SX 6.3W±1W : V,VX
5W/1W	3) Menu No. : 108 Transmit							5W±0.3W : S,SX 1.3W±0.1W : V,VX

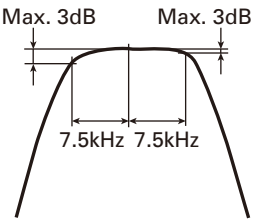
ADJUSTMENT (J TYPE)

Item	Condition	Measurement			Adjustment			Specifications / Remarks
		Test-equipment	Unit	Terminal	Unit	Parts	Method	
22. ALC meter start point	1) Menu No. : 87 (Frequency : 14.1MHz) Transmit	Power meter	Rear panel	ANT1	Front panel	[+] key	1 push	(ALC meter lights up to 1)
Zone max.	2) Menu No. : 88 Transmit							(ALC meter zone max.)
23. FM DEV Wide	1) Menu No. : 89 (Frequency : 29.1MHz) Transmit							4.3kHz±0.05kHz
Narrow	2) Menu No. : 90 Transmit							2.2kHz±0.05kHz
24. HF SWR protection	1) Menu No. : 118 (Frequency : 14.1MHz) Transmit 150Ω dummy connection : Use a cable that is 1m long	Through type power meter 150Ω dummy		ANT2		[+] key or [–] key	Set the adjustment value within the limit of the specified power.	40W±1W : S,SX 8W±0.5W : V,VX
25. SWR meter (SWR : 3)	1) Menu No. : 119 (Frequency : 14.1MHz) Transmit 150Ω dummy connection : Use a cable that is approx. 10cm long					[+] key	1 push	(SWR meter lights up to 3 level.)
26. 50MHz SWR meter (SWR : 3)	1) Menu No. : 120 (Frequency : 50.1MHz) Transmit							
27. VHF SWR protection	1) Menu No. : 121 (Frequency : 145.9MHz) ANT : Open Transmit	Ammeter		ANT144		[+] key or [–] key	Set the adjustment value within the limit of the specified current.	11A±0.25A : S,SX 9.0A±0.25A : V,VX
28. UHF SWR protection	1) Menu No. : 122 (Frequency : 438.1MHz) ANT : Open Transmit			ANT430				9.25A±0.25A : S,SX 7.0A±0.25A : V,VX
• Writing data : After items 5~8 and 12~28 have been adjusted; 1) Menu No. 124 2) [+] or [–] key : Push once time. Display "rEAdy" → "good" (If "nG" is displayed, enter data again.) 3) [CLR] key : Push once time.								
29. AT detection balance	1) Display f. : 51.990MHz Mode : CW Power : 10W Transmit	Oscilloscope Power meter	Filter Rear panel	TP1 (AMD) ANT1	Filter	VR2	Turn the VR2 to the point where the waveform on the oscilloscope changes from high to low. (Threshold point)	

1200MHz Unit Transmitter Section

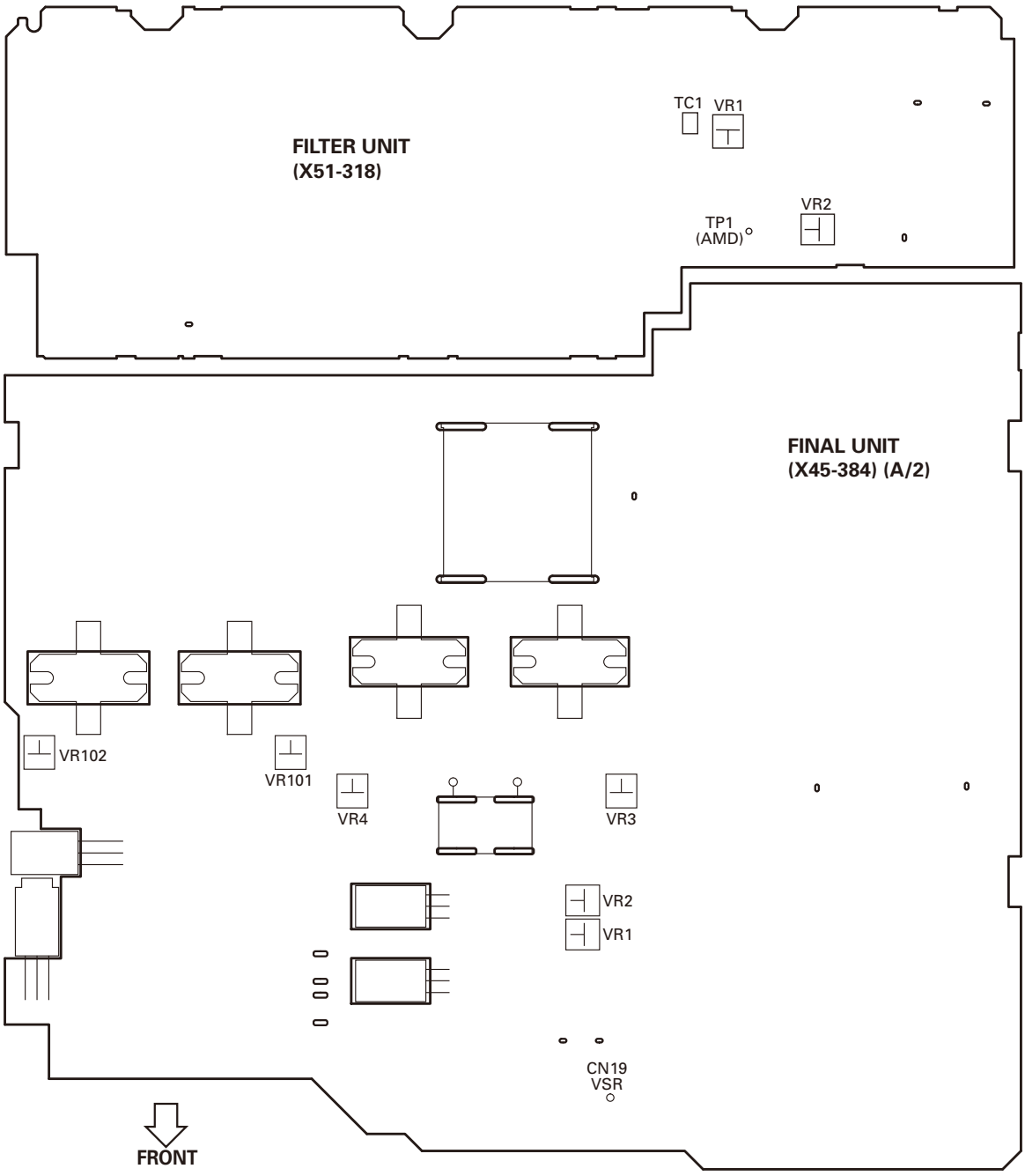
Item	Condition	Measurement			Adjustment			Specifications / Remarks
		Test-equipment	Unit	Terminal	Unit	Parts	Method	
1. TX IF gain	1) Display f. : 1270.000MHz Mode : CW Carrier : 0 Transmit	Spectrum analyzer Power meter	Rear panel	ANT1.2G	TX-RX3		Set the carrier level at approx. 100mW.	
						L2 L3 L9	Power max.	

ADJUSTMENT (J TYPE)

Item	Condition	Measurement			Adjustment			Specifications / Remarks
		Test-equipment	Unit	Terminal	Unit	Parts	Method	
2. MCF (135.395MHz)	1) Disconnect the cable from CN5. Display f. : 1270.00MHz Mode : USB Tracking generator level : –10dBm Spectrum analyzer setting Center f. : 135.395MHz Frequency span : 50kHz XdB/DIV : 2dB RBW : 1kHz VBW : 1kHz Transmit Connect the cable to CN5.	Tracking generator Spectrum analyzer	TX-RX3	CN15 CN14	TX-RX3	L320 L321 L5	Adjust the coils to obtain the frequency response as shown.	
• Perform the following in the adjustment mode. Item 3~6. To terminate the adjustment menu in the middle, save your settings with Menu No. 124.								
3. 1.2G power POC 10W	1) Menu No. : 109 (Frequency : 1270.1MHz) Transmit	Power meter	Rear panel	ANT1.2G	Front panel	[+] key or [–] key	Set the adjustment value within the limit of the specified power.	10W±0.3W
5W	2) Menu No. : 110 Transmit							5W±0.2W
2.5W	3) Menu No. : 111 Transmit							2.5W±0.1W
1W	4) Menu No. : 112 Transmit							1W±0.1W
4. Band TGC 1260MHz	1) Menu No. : 113 (Frequency : 1260.1MHz) Transmit Note: Display "ADJ TGC 1240"							10W±0.3W
1270MHz	2) Menu No. : 114 (Frequency : 1270.1MHz) Transmit							
1299MHz	3) Menu No. : 115 (Frequency : 1299.9MHz) Transmit							
5. 1.2G power PGC 2.5W	1) Menu No. : 116 (Frequency : 1270.1MHz) Transmit							2.5W±0.1W
1W	2) Menu No. : 117 Transmit							1W±0.1W
6. 1.2G protection	1) Menu No. : 123 (Frequency : 1270.1MHz) ANT : 50Ω dummy load Set the adjustment value to 0. Transmit	DC V.M	TX-RX1 (A/10)	CN27 (12VSR)			Check the default voltage (Vo).	0.1 to 1.0V
	2) Menu No. : 123 (Frequency : 1270.1MHz) ANT : Open Set the adjustment value to 100. Transmit					[+] key or [–] key	Set the adjustment value within the limit of the specified voltage.	Vo+(0.58 to 0.62V)
• Writing data : After items 3~6 have been adjusted; 1) Menu No. 124 2) [+] or [–] key : Push once time. Display "rEAdy" → "good" (If "nG" is displayed, enter data again.) 3) [CLR] key : Push once time.								

ADJUSTMENT

Adjustment Points (Upper Side)

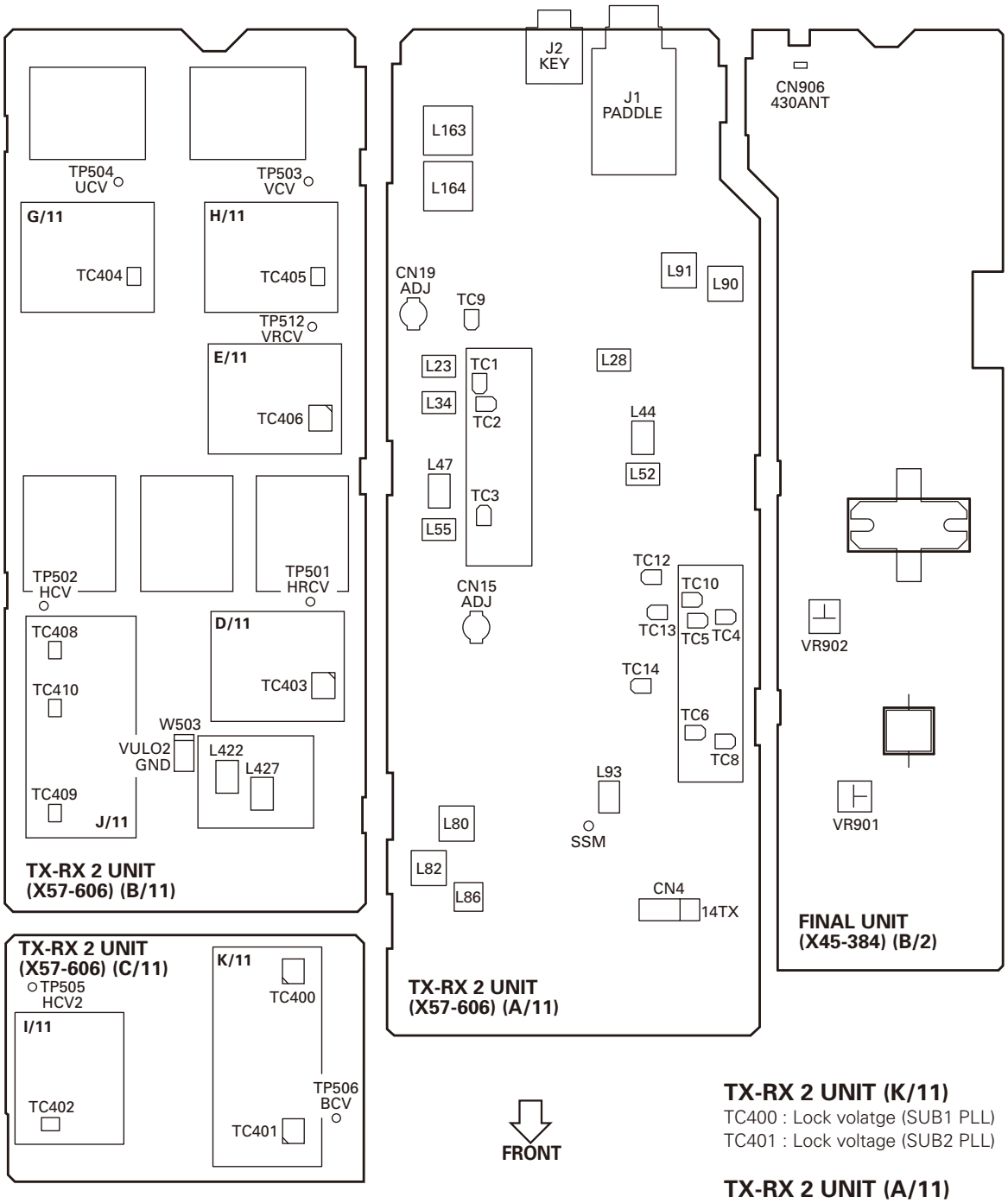


FILTER UNIT
TC1 : Null
VR1 : Power frequency characteristic
VR2 : AT detection balance

FINAL UNIT (A/2)
VR1,2,3,4,101,102 : Final idling current (HF/VHF)

ADJUSTMENT

Adjustment Points (Lower Side)



TX-RX 2 UNIT (B/11)
L422,427 : 31.2MHz level

TX-RX 2 UNIT (D/11)
TC403 : Lock volatge (HF REF VCO)

TX-RX 2 UNIT (E/11)
TC406 : Lock volatge (VHF REF VCO)

TX-RX 2 UNIT (G/11)
TC404 : Lock volatge (UHF PLL)

TX-RX 2 UNIT (H/11)
TC405 : Lock volatge (VHF MAIN PLL)

TX-RX 2 UNIT (I/11)
TC402 : Lock voltage (HF LO2 PLL)

TX-RX 2 UNIT (J/11)
TC408 : Lock voltage (HF1 MAIN PLL)
TC409 : Lock voltage (HF3 MAIN PLL)
TC410 : Lock voltage (HF2 MAIN PLL)

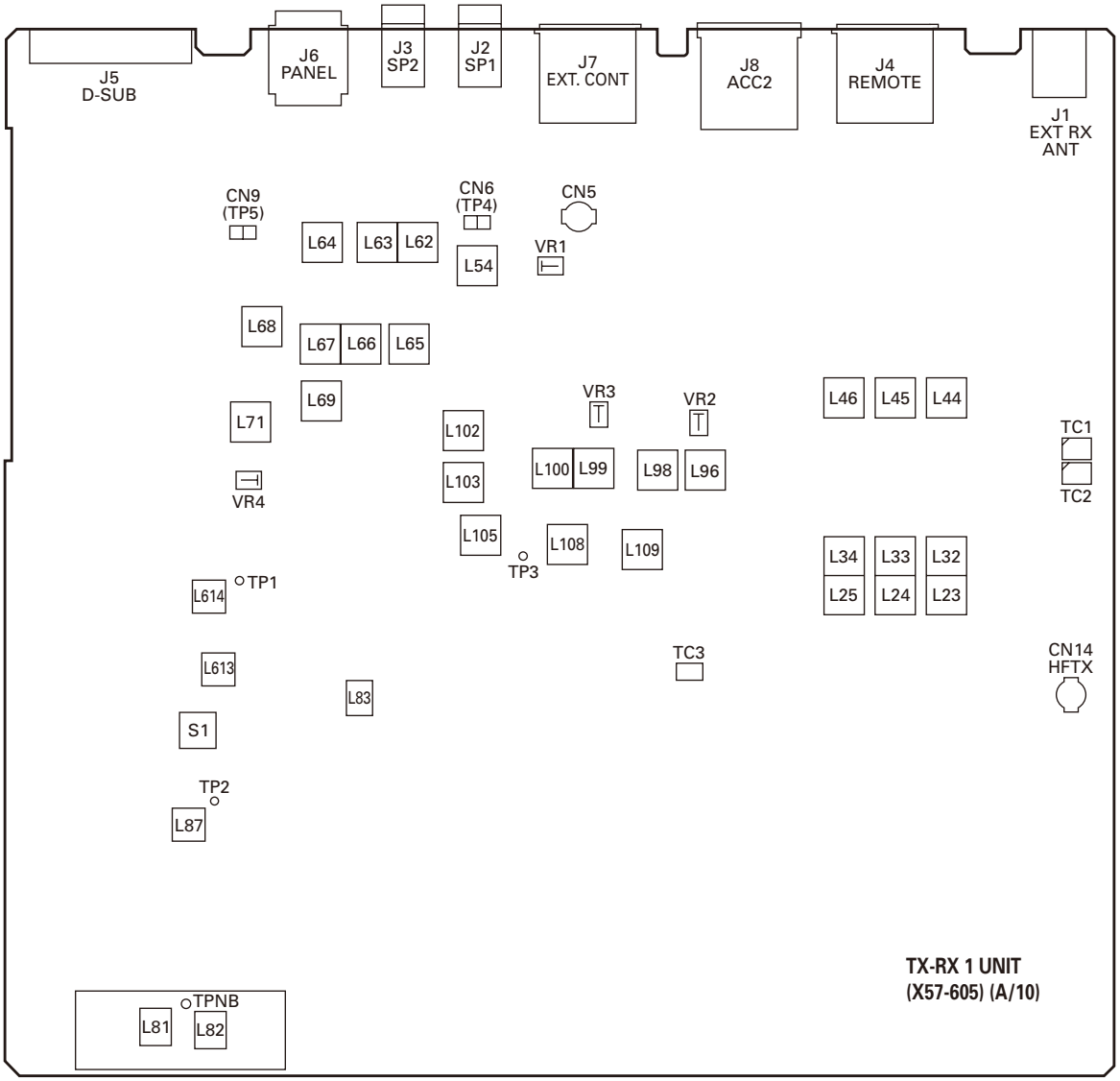
TX-RX 2 UNIT (K/11)
TC400 : Lock volatge (SUB1 PLL)
TC401 : Lock voltage (SUB2 PLL)

TX-RX 2 UNIT (A/11)
L23,34,47,55,163,164 : MAIN VHF BPF
L28,44,52 : Sub band BPF
L80,82,86 : RX IF gain (VHF)
L90,91,TC4~6,8,10 : TX BPF (UHF)
L93 : Sub band FM discriminator coil (VHF)
TC1~3,9 : MAIN UHF BPF
TC9 : Trap frequency (UHF)
TC12~14 : TX BPF (VHF)

FINAL UNIT (B/2)
VR901,902 : Final idling current (UHF)

ADJUSTMENT

Adjustment Points (Lower Side)



TX-RX 1 UNIT (A/10)

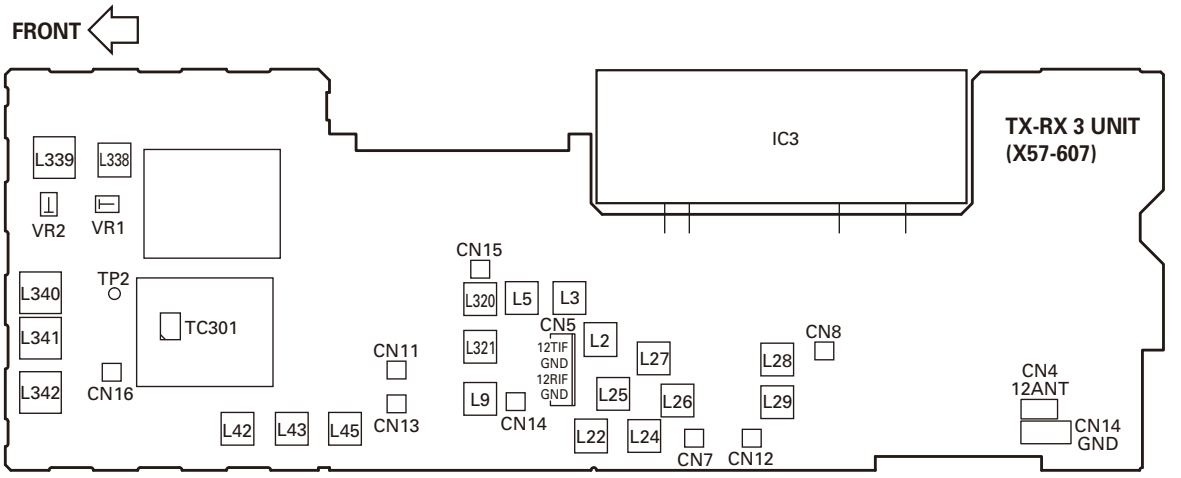
L23~25,32~34,44~46 : HF BPF
L54,62~64,68 : MCF (69.085MHz)
L65~67 : MCF (72.925MHz)
L69,71,87,613,614 : HF RX IF gain
L81,82 : NB gain

FRONT

L83 : FM discriminator coil (HF)
L96,98~100,102,103,105,108,109 : TX IF gain (HF)
L96,98,99,100,102,VR3 : TX IF BPF (HF)
VR1 : 1st mixer balance
VR2 : TX mixer balance
VR4 : Gain balance
TC1,2 : RX trap (E type only)
TC3 : 29.1MHz frequency

ADJUSTMENT

1200MHz Adjustment Points

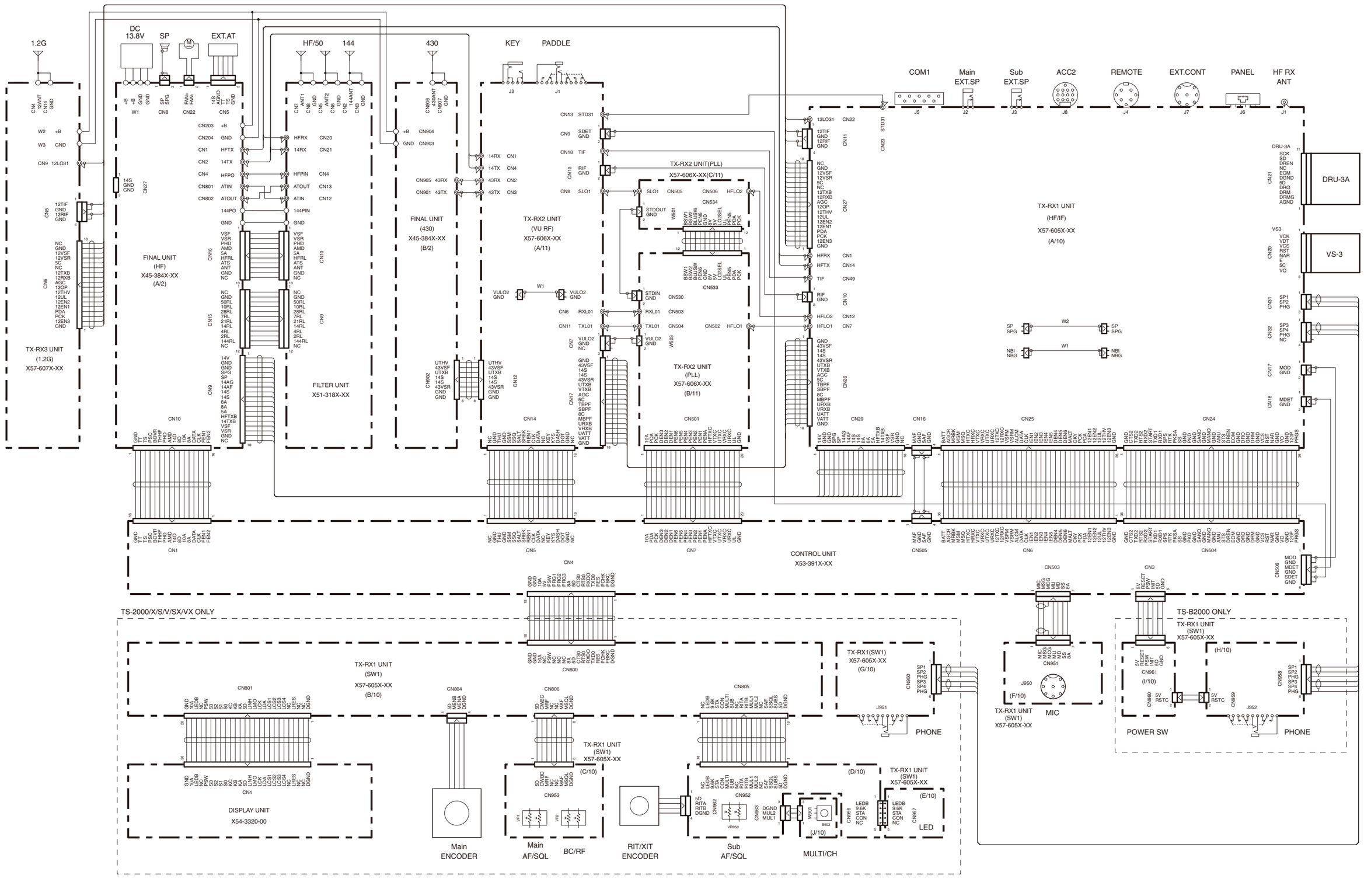


TX-RX 3 UNIT

L2,3,9 : TX IF gain
L5,320,321 : MCF (135.395MHz)
L22,24,25,29 : RX IF gain
L26~28 : MCF (135.495MHz)
L42,43,45 : LO level (Local osc)
L338~342,VR1 : PLL reference level
VR2 : PLL reference spurious
TC301 : VCO control voltage

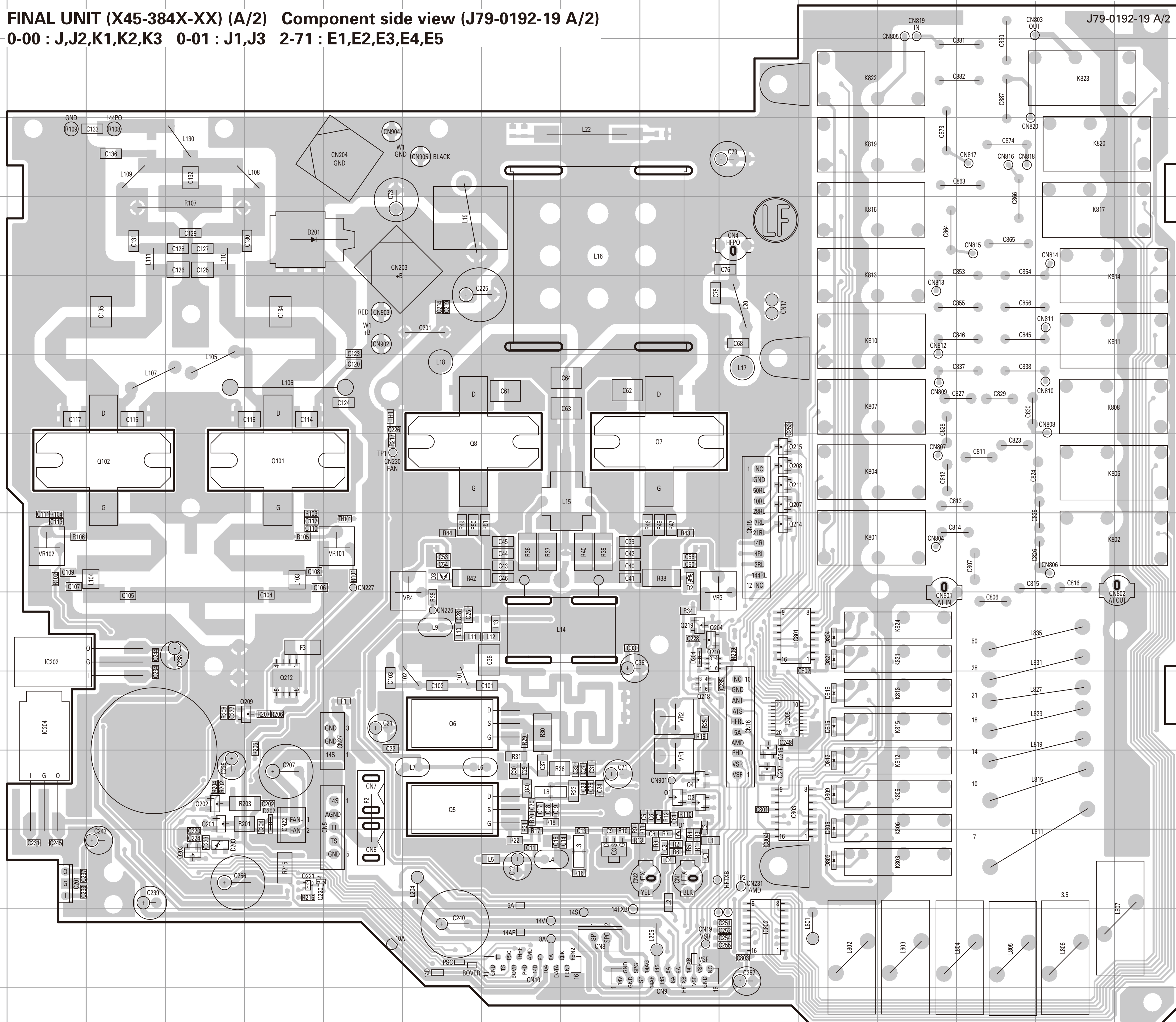
TS-2000/B2000/2000X
TS-2000S/2000V/2000SX/2000VX

INTERCONNECTION DIAGRAM



PC BOARD TS-2000/B2000/2000X TS-2000S/2000V/2000SX/2000VX

FINAL UNIT (X45-384X-XX) (A/2) Component side view (J79-0192-19 A/2)
0-00 : J,J2,K1,K2,K3 0-01 : J1,J3 2-71 : E1,E2,E3,E4,E5



Ref. No.	Address	Ref. No.	Address
IC201	12B	Q211	7K
IC202	9B	Q212	10E
IC204	10B	Q214	8K
IC205	10K	Q215	7K
IC801	9K	Q216	11K
IC802	13K	Q217	11K
IC803	11K	Q218	10J
Q1	11J	Q219	9J
Q2	11J	Q220	12E
Q3	12I	Q221	12E
Q4	11J	D1	12J
Q5	11G	D2	8J
Q6	10G	D3	8G
Q7	7J	D201	4E
Q8	7G	D202	11E
Q101	7E	D203	12D
Q102	7C	D204	9J
Q201	11D	D802	12L
Q202	11D	D806	11L
Q203	12D	D809	11L
Q204	9J	D812	11L
Q207	7K	D815	10L
Q208	7K	D818	10L
Q209	10E	D821	9L
Q210	9J	D824	9L

Component side
Layer 1
Layer 2
Foil side

TS-2000/B2000/2000X
TS-2000S/2000V/2000SX/2000VX **PC BOARD**

J79-0192-19 A/2

FINAL UNIT (X45-384X-XX) (A/2) Foil side view (J79-0192-19 A/2)
0-00 : J,J2,K1,K2,K3 0-01 : J1,J3 2-71 : E1,E2,E3,E4,E5

Ref. No.	Address
IC203	10Q
Q205	9I
Q206	9J
Q213	9J
D205	9I
D206	9I
D207	9I
D208	9I
D801	8D
D803	8H
D804	7H
D805	7D
D807	6H
D808	6D
D810	5H
D811	5D
D813	4H
D814	4D
D816	4H
D817	3D
D819	3H
D820	3D
D822	2H
D823	2D

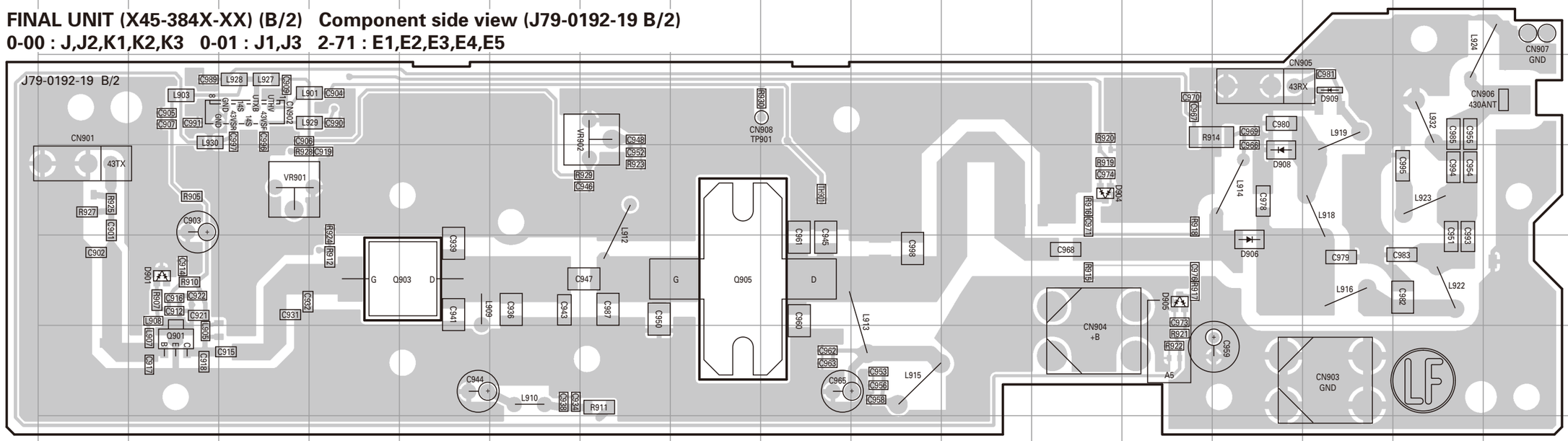
Component side
Layer 1
Layer 2
Foil side

PC BOARD

TS-2000/B2000/2000X
TS-2000S/2000V/2000SX/2000VX

FINAL UNIT (X45-384X-XX) (B/2) Component side view (J79-0192-19 B/2)

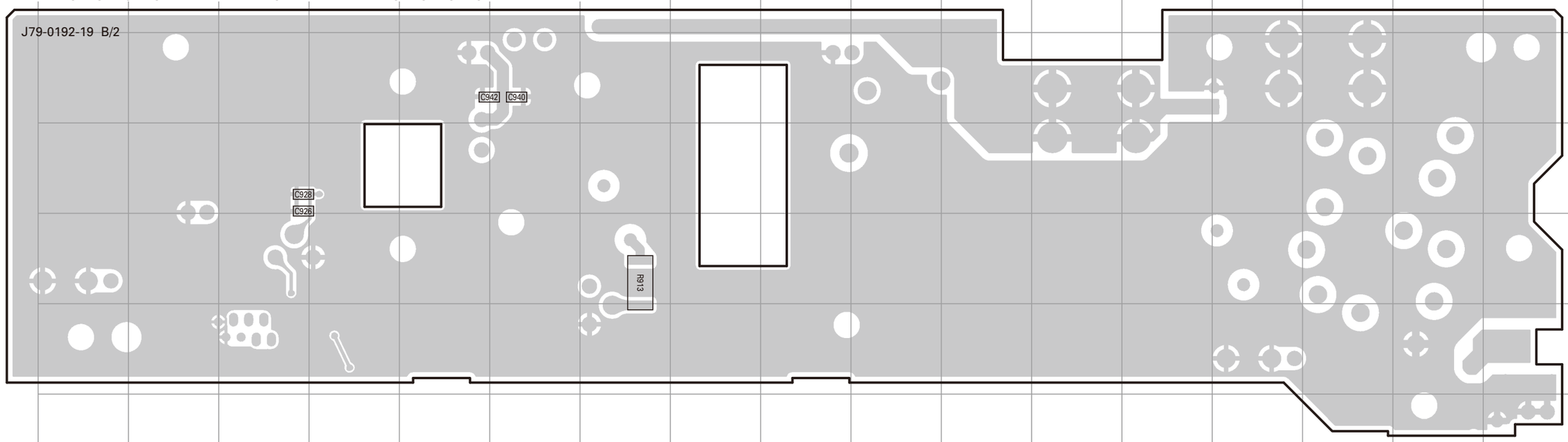
0-00 : J,J2,K1,K2,K3 0-01 : J1,J3 2-71 : E1,E2,E3,E4,E5



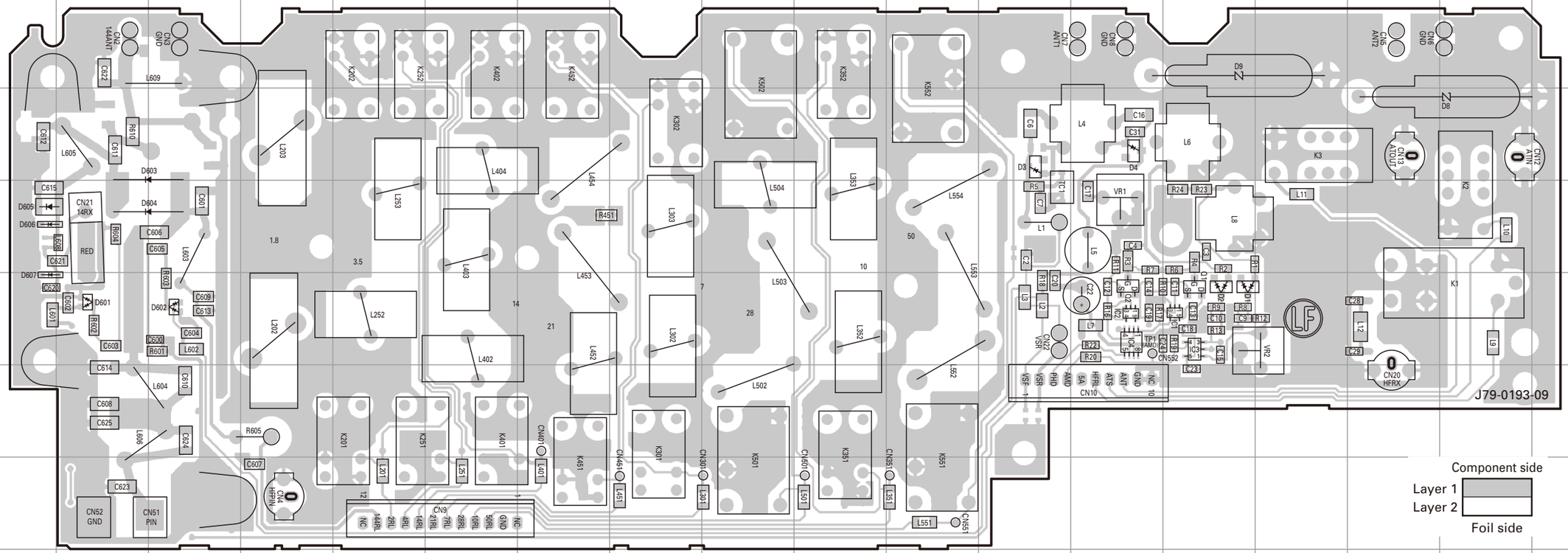
Ref. No.	Address
Q901	6B
Q903	5E
Q905	5H
D901	5B
D904	4L
D905	5M
D906	5N
D908	4N
D909	3O

FINAL UNIT (X45-384X-XX) (B/2) Foil side view (J79-0192-19 B/2)

0-00 : J,J2,K1,K2,K3 0-01 : J1,J3 2-71 : E1,E2,E3,E4,E5

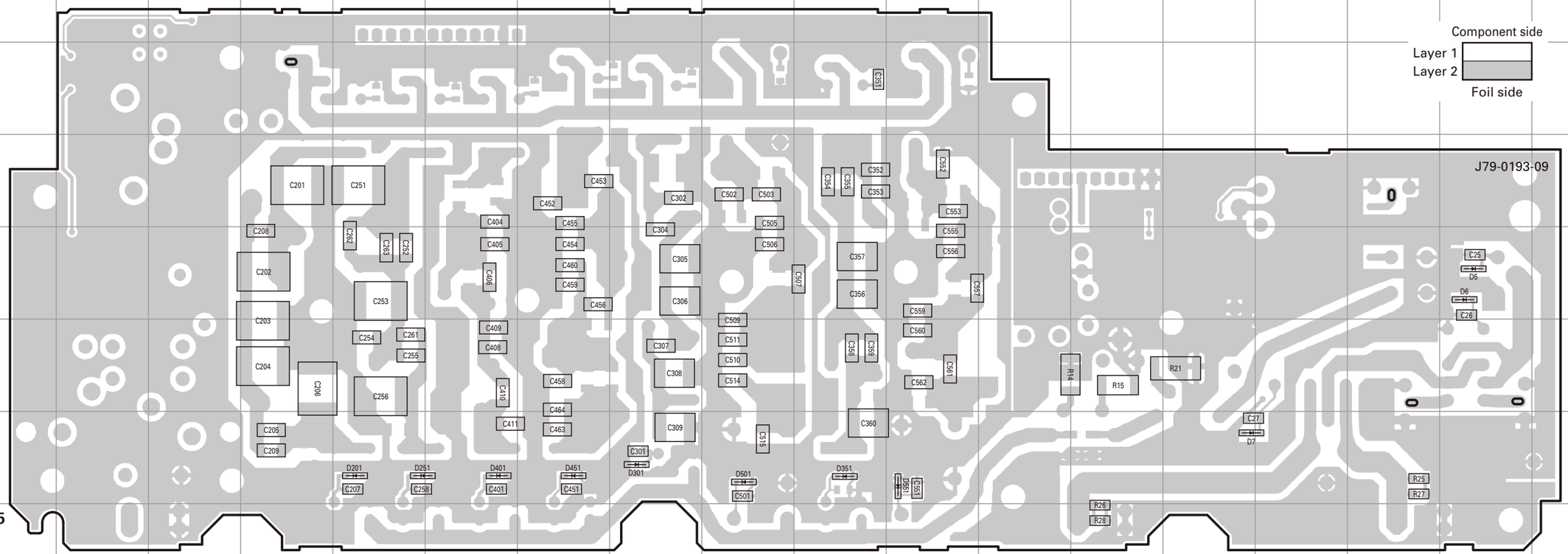


FILTER UNIT (X51-318X-XX) 0-00 : J,J2,K1,K2,K3,E1,E2,E3,E4,E5 0-01 : J1,J3 Component side view (J79-0193-09)



Ref. No.	Address
IC1	5N
IC2	5M
IC3	5N
IC4	5M
Q1	5N
Q2	5M
D1	5N
D2	5N
D3	3L
D4	3M
D8	3Q
D9	2N
D601	5B
D602	5C
D603	3C
D604	4C
D605	4A
D606	4A
D607	5A

FILTER UNIT (X51-318X-XX) 0-00 : J,J2,K1,K2,K3,E1,E2,E3,E4,E5 0-01 : J1,J3 Foil side view (J79-0193-09)

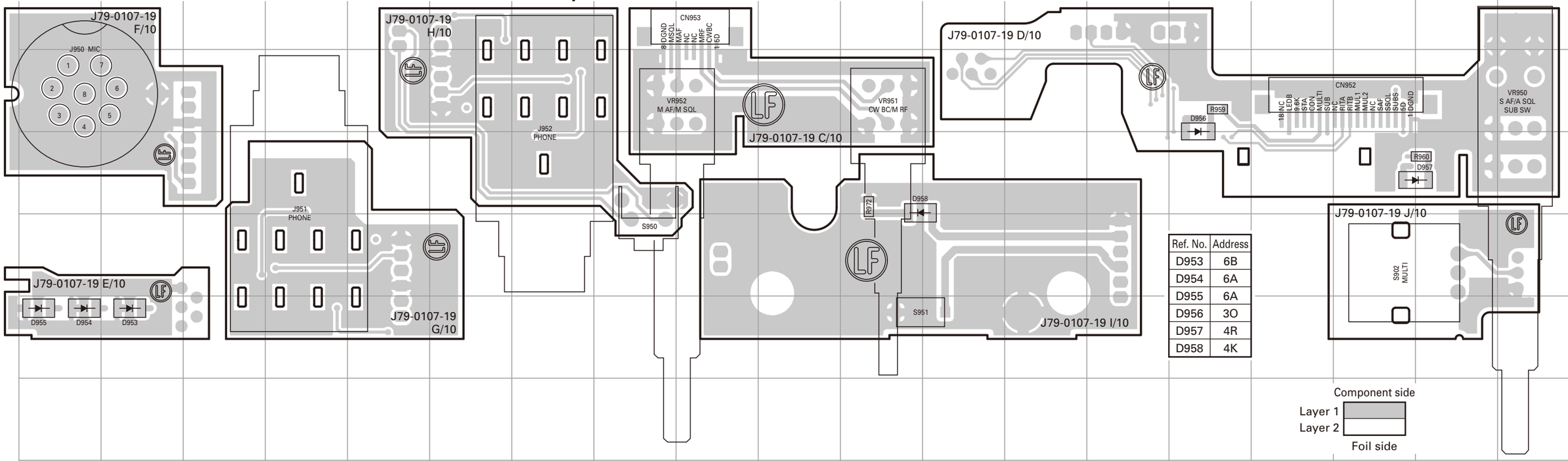


Ref. No.	Address
D5	11Q
D6	11Q
D7	13N
D201	13E
D251	13E
D301	13H
D351	13J
D401	13F
D451	13G
D501	13I
D551	13K

PC BOARD

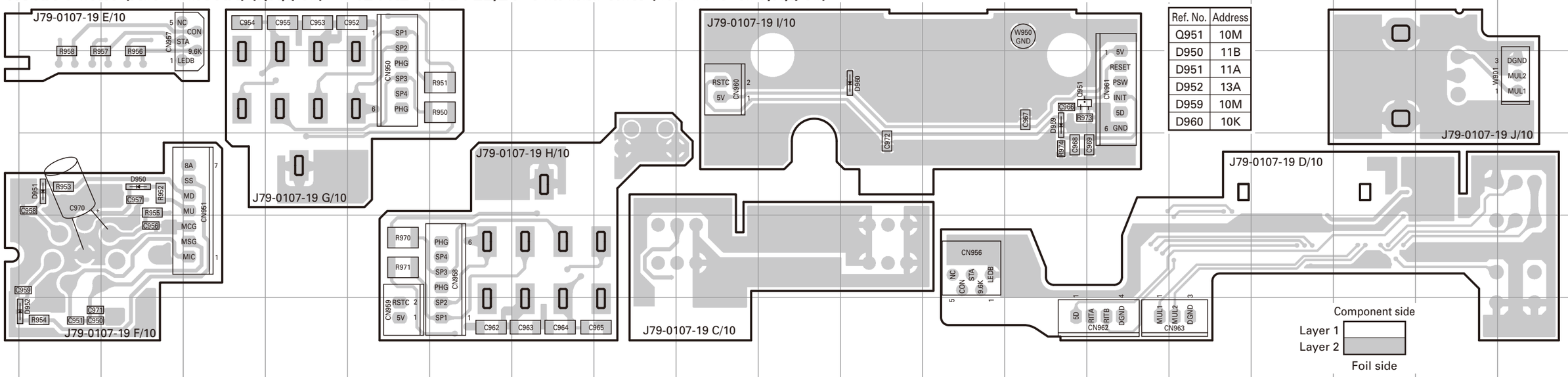
TS-2000/B2000/2000X
TS-2000S/2000V/2000SX/2000VX

TX-RX 1 UNIT (X57-605X-XX) (C,D,E,F,G,J/10) 0-00 : J,J2 0-01 : J1,J3 0-11 : K1,K3 2-71 : E1,E3,E5 Component side view (J79-0107-19 C,D,E,F,G,J/10)
TX-RX 1 UNIT (X57-605X-XX) (F,H,I/10) 0-12 : K2 2-72 : E2,E4 Component side view (J79-0107-19 F,H,I/10)



Ref. No.	Address
D953	6B
D954	6A
D955	6A
D956	3O
D957	4R
D958	4K

Component side
Layer 1
Layer 2
Foil side



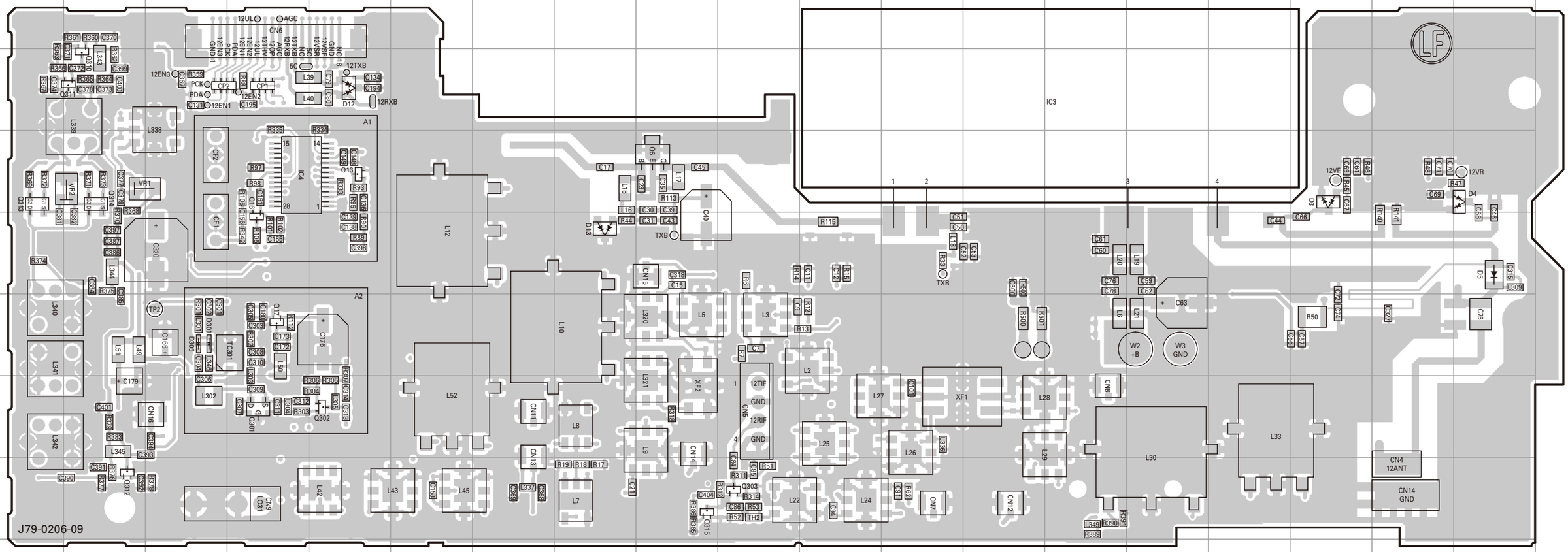
Ref. No.	Address
Q951	10M
D950	11B
D951	11A
D952	13A
D959	10M
D960	10K

Component side
Layer 1
Layer 2
Foil side

TX-RX 1 UNIT (X57-605X-XX) (C,D,E,F,G,J/10) 0-00 : J,J2 0-01 : J1,J3 0-11 : K1,K3 2-71 : E1,E3,E5 Foil side view (J79-0107-19 C,D,E,F,G,J/10)
TX-RX 1 UNIT (X57-605X-XX) (F,H,I/10) 0-12 : K2 2-72 : E2,E4 Foil side view (J79-0107-19 F,H,I/10)

TS-2000/B2000/2000X
TS-2000S/2000V/2000SX/2000VX **PC BOARD**

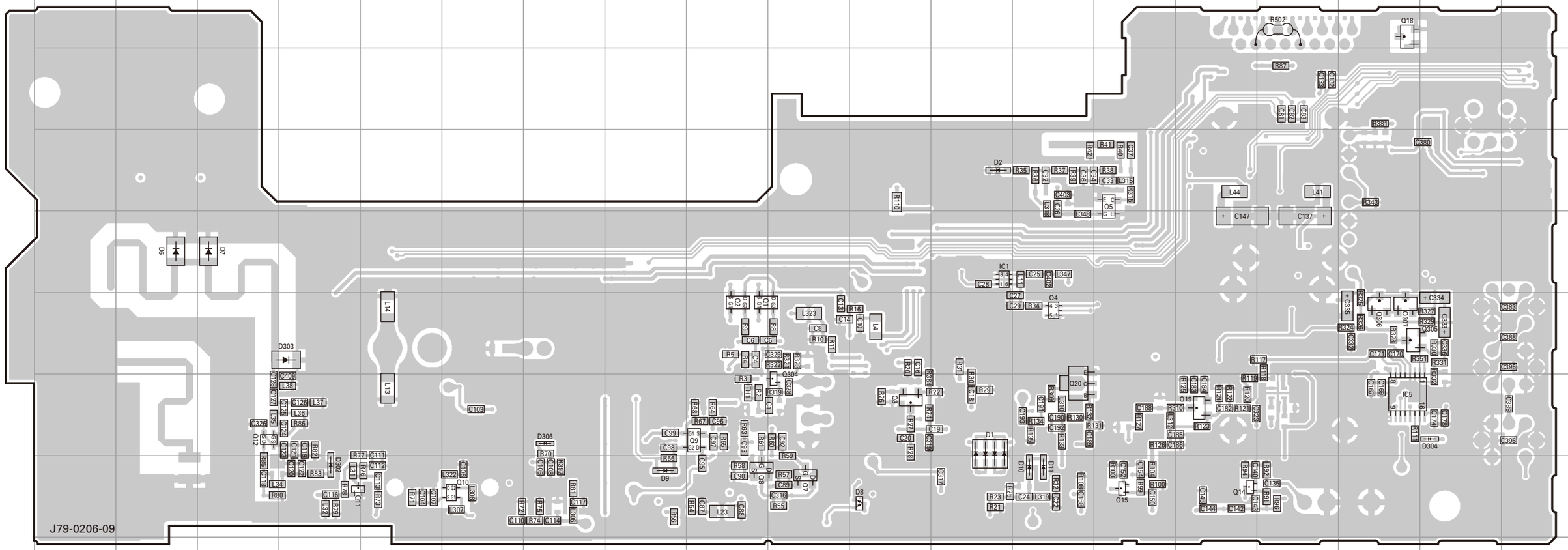
TX-RX 3 UNIT (UT-20) (X57-607X-XX) 0-00 : J2,J3,K3 2-71 : E5 Component side view (J79-0206-09)



Ref No.	Address	Ref No.	Address	Ref No.	Address	Ref No.	Address	Ref No.	Address
IC3	4N	Q17	7D	Q311	4B	D3	5Q	D301	7C
IC4	5D	Q301	8D	Q312	9B	D4	5S	D305	7C
Q6	5I	Q302	8E	Q313	5A	D5	6S		
Q13	5E	Q303	9J	Q314	5B	D12	4E		
Q16	6D	Q310	4B	Q315	9I	D13	6H		

Component side
Layer 1
Layer 2
Layer 3
Layer 4
Foil side

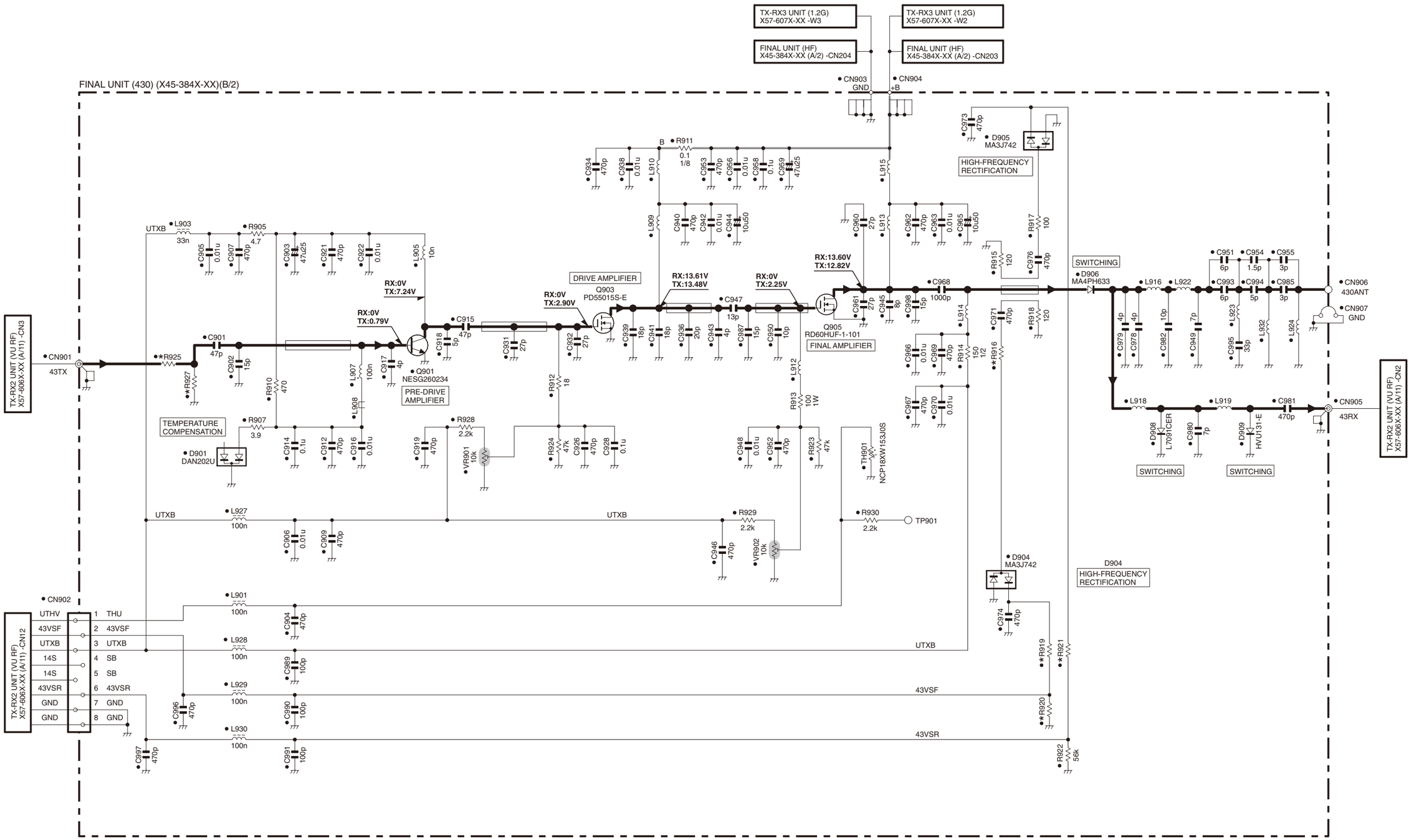
TX-RX 3 UNIT (UT-20) (X57-607X-XX) 0-00 : J2,J3,K3 2-71 : E5 Foil side view (J79-0206-09)



Ref No.	Address	Ref No.	Address	Ref No.	Address	Ref No.	Address	Ref No.	Address	Ref No.	Address	Ref No.	Address
IC1	6L	Q4	7M	Q10	9F	Q18	3Q	Q306	7Q	D7	6C	D302	9D
IC5	8Q	Q5	5N	Q11	9D	Q19	8O	Q307	7Q	D8	9K	D303	7D
Q1	7I	Q7	9J	Q12	8C	Q20	8M	D1	8L	D9	9H	D304	8R
Q2	7I	Q8	9I	Q14	9O	Q304	8J	D2	5L	D10	9M	D306	8G
Q3	8K	Q9	8I	Q15	9N	Q305	7Q	D6	6B	D11	9M		

Component side
Layer 1
Layer 2
Layer 3
Layer 4
Foil side

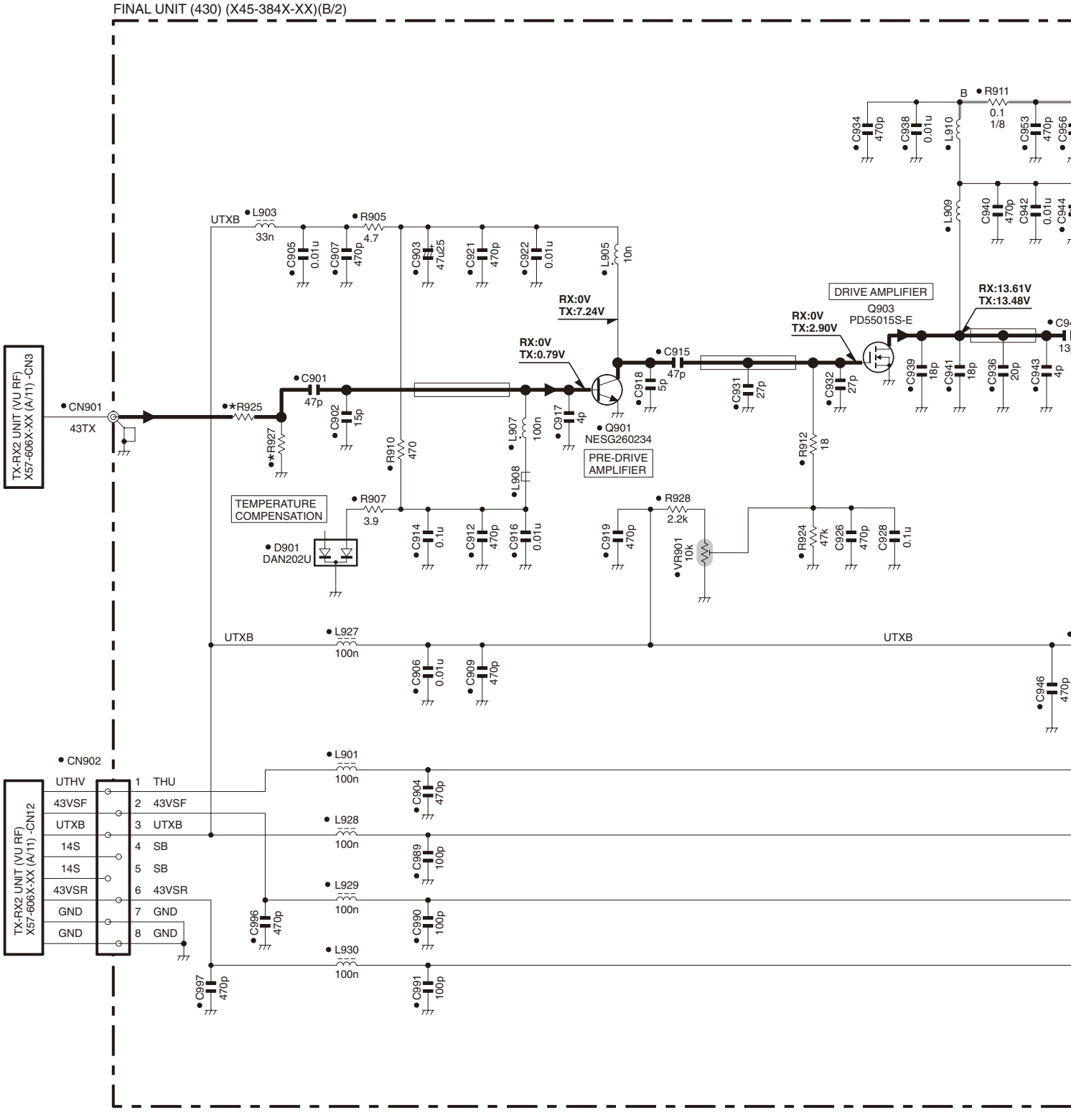
SCHEMATIC DIAGRAM



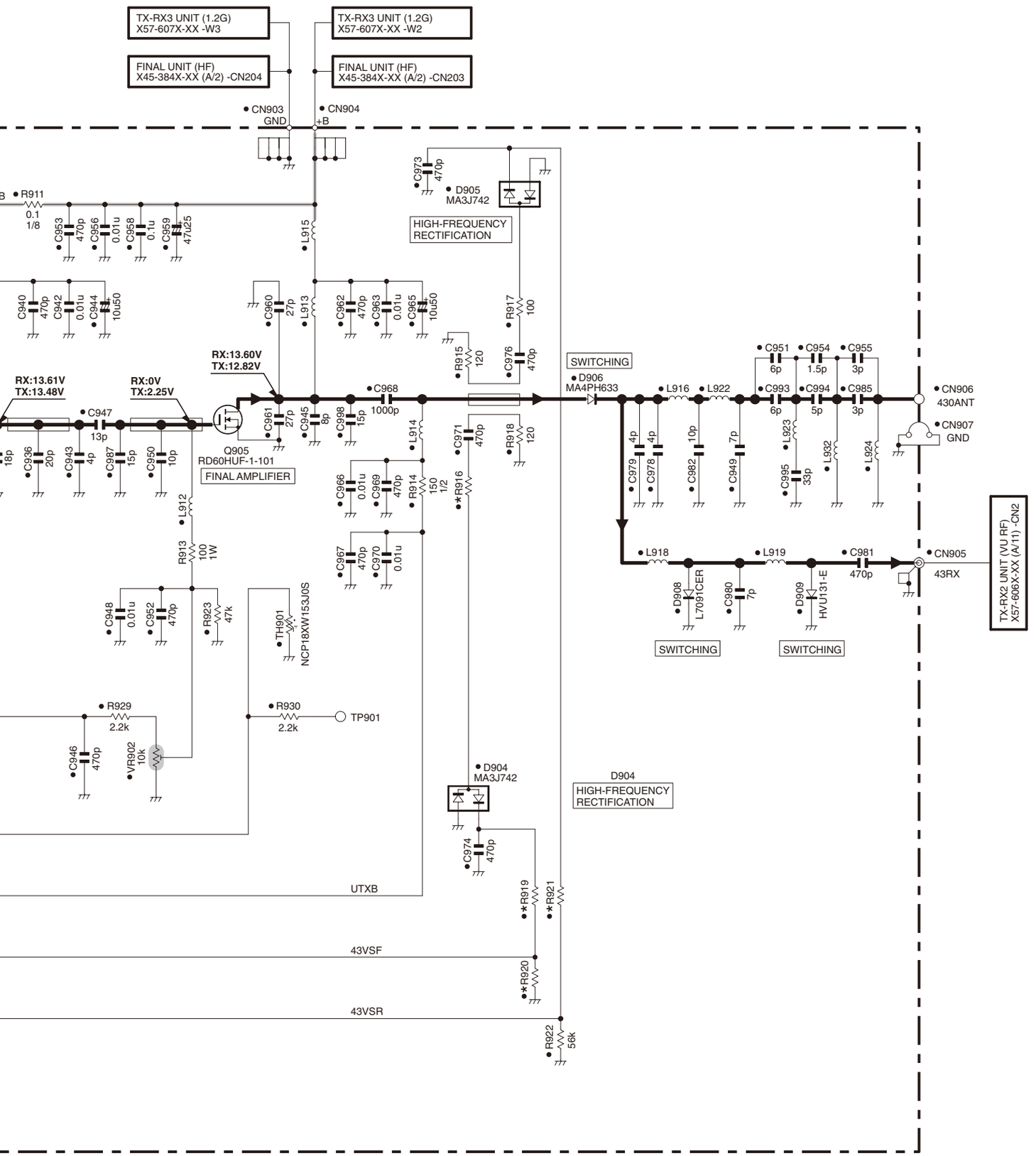
X45-384X-XX		R916	R919	R920	R921	R925	R927
0-00	J,J2,K1,K2,K3	470	2.7k	100k	68k	22	NO
0-01	J1,J3	100	47k	56k	33k	27	47
2-71	E1,E2,E3,E4,E5	470	2.7k	100k	68k	22	NO

Note : The components marked with a dot (•) are parts of layer 1.

SCHEMATIC DIAGRAM



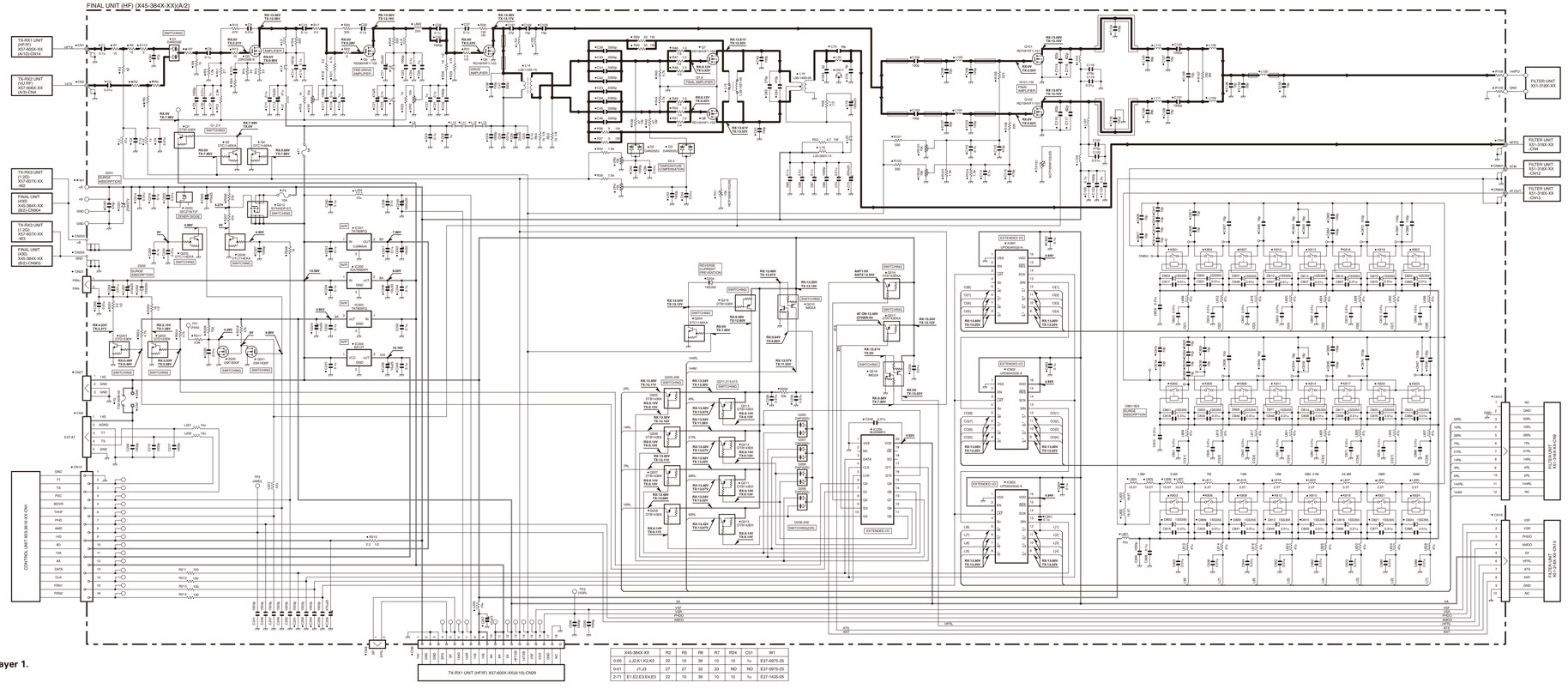
X45-384X-XX		R916	R919	R920	R921	R925	R927
0-00	J,J2,K1,K2,K3	470	2.7k	100k	68k	22	NO
0-01	J1,J3	100	47k	56k	33k	27	47
2-71	E1,E2,E3,E4,E5	470	2.7k	100k	68k	22	NO



Note : The components marked with a dot (•) are parts of layer 1.

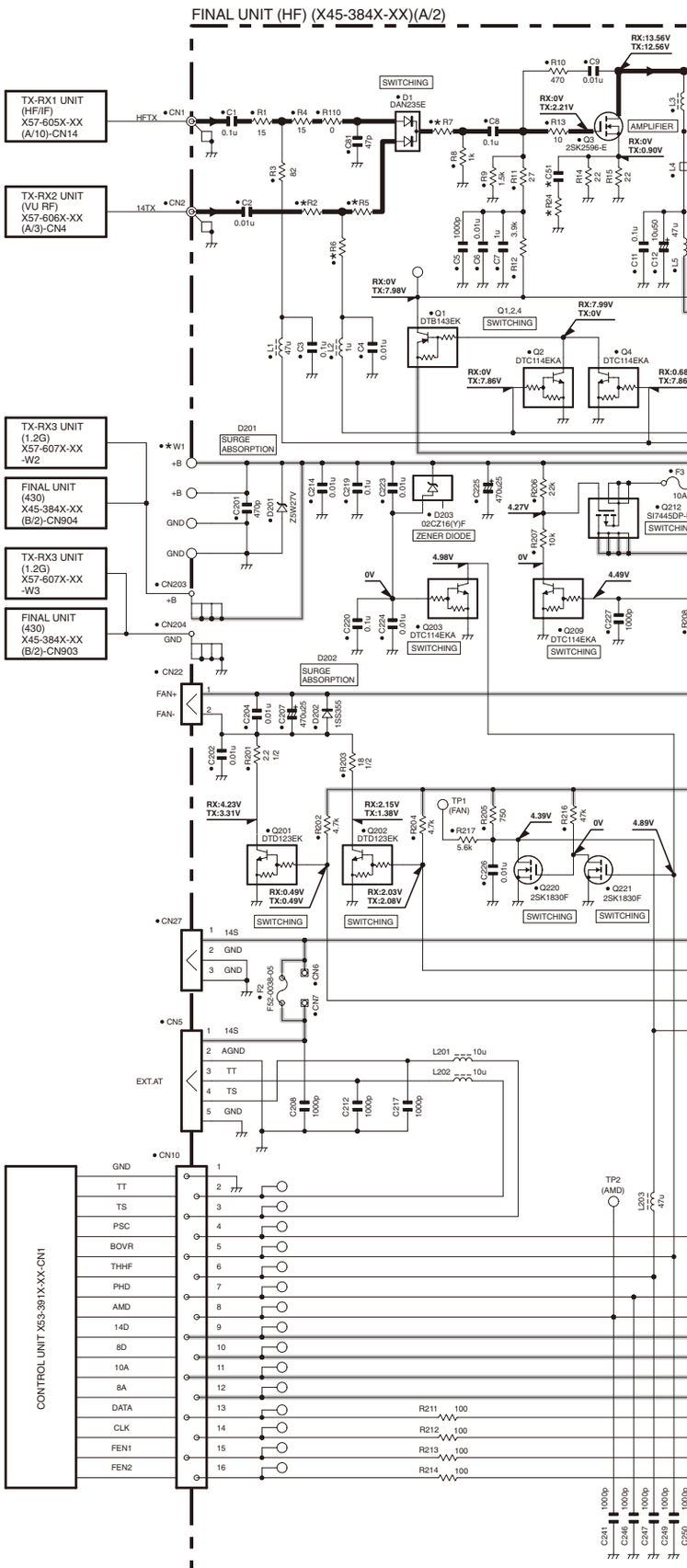
SCHEMATIC DIAGRAM

TS-2000/B2000/2000X
TS-2000S/2000V/2000SX/2000VX

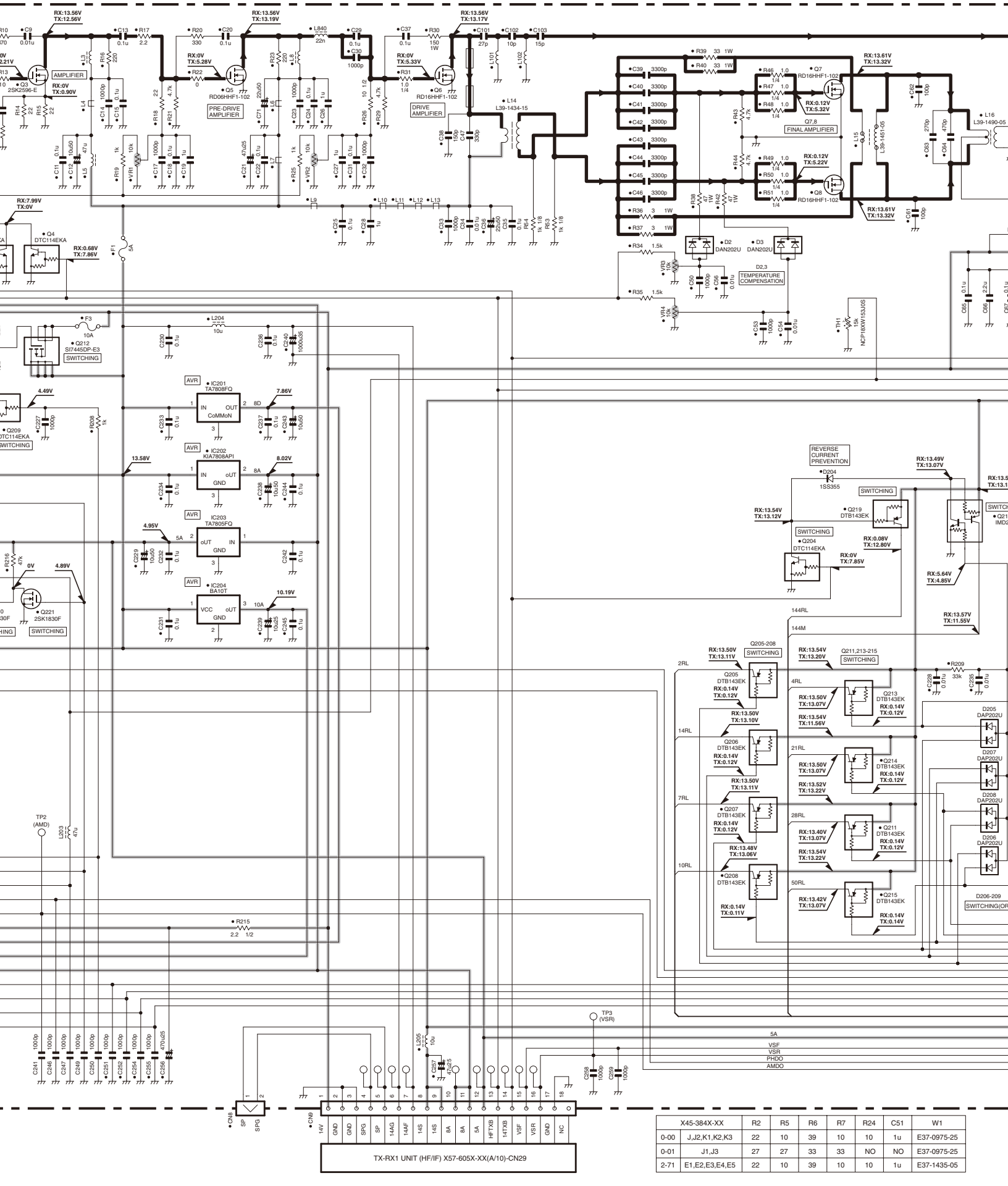


Note : The components marked with a dot (•) are parts of layer 1.

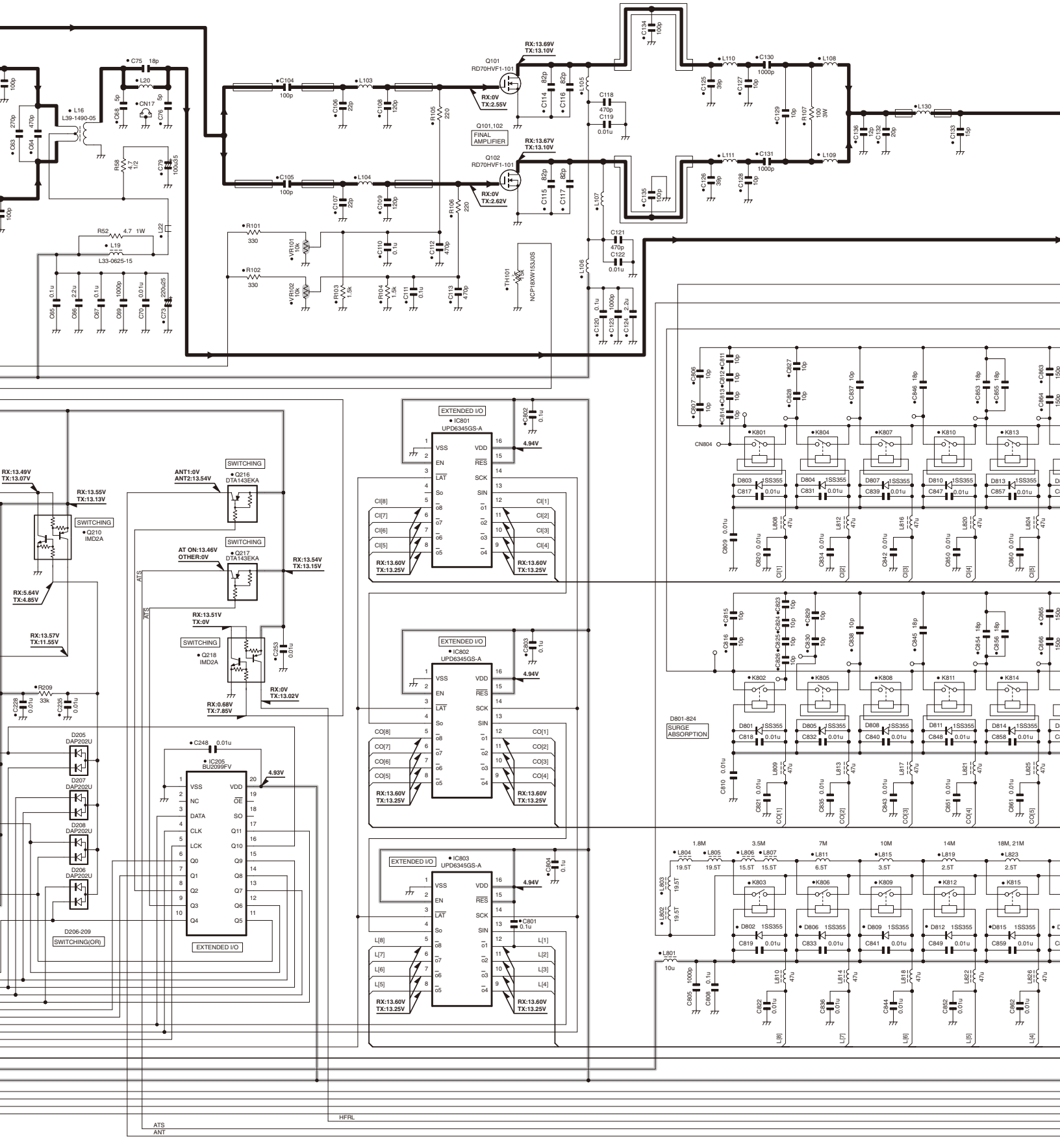
X45-384X-XX	R2	R5	R6	R7	R24	C51	R1
0-00	J,JJ,K1,K2,K3	22	10	39	10	10	1u	E37-0975-25
0-01	J1,J3	27	27	33	33	NO	NO	E37-0975-25
0-71	E1,E2,E3,E4,E5	22	10	39	10	10	1u	E37-1436-05



Note : The components marked with a dot (•) are parts of layer 1.



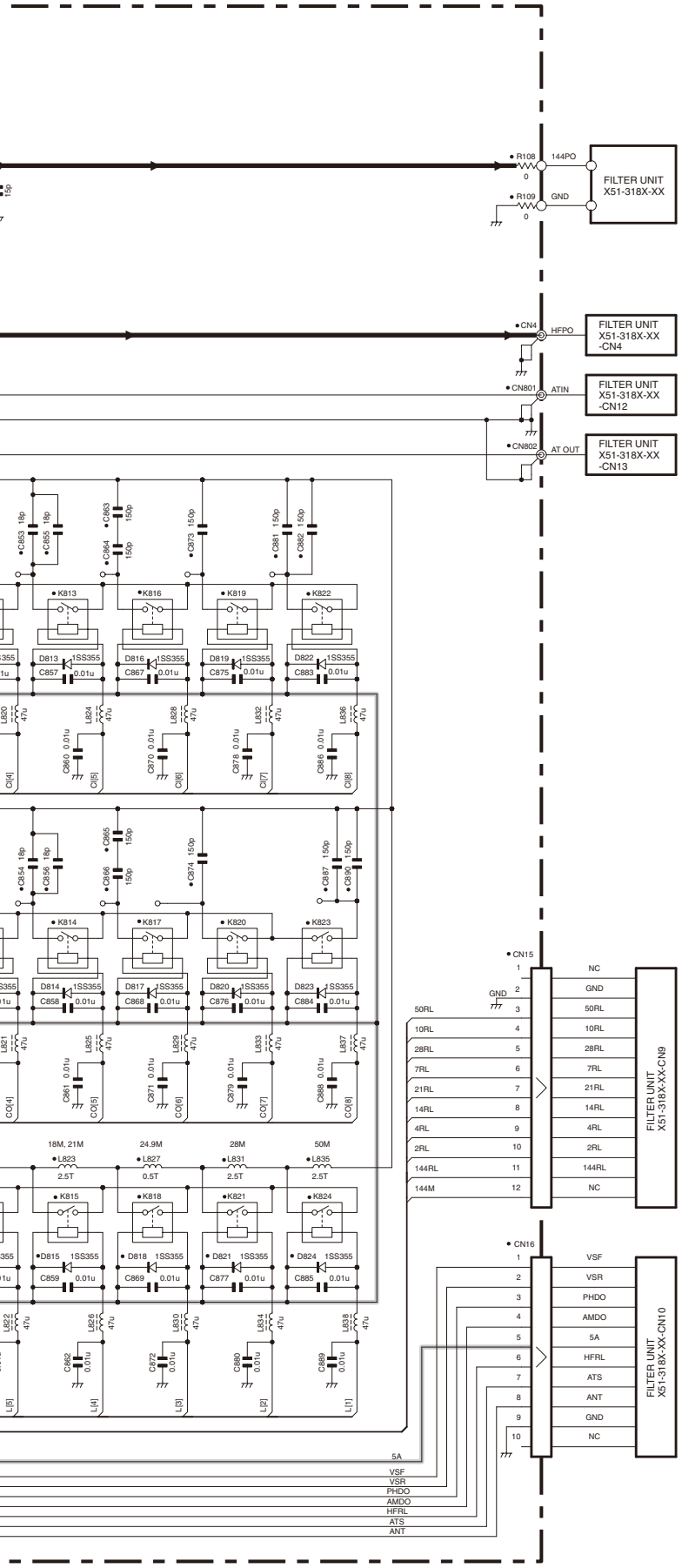
X45-384X-XX		R2	R5	R6	R7	R24	C51	W1
0-00	J,J2,K1,K2,K3	22	10	39	10	10	1u	E37-0975-25
0-01	J1,J3	27	27	33	33	NO	NO	E37-0975-25
2-71	E1,E2,E3,E4,E5	22	10	39	10	10	1u	E37-1435-05



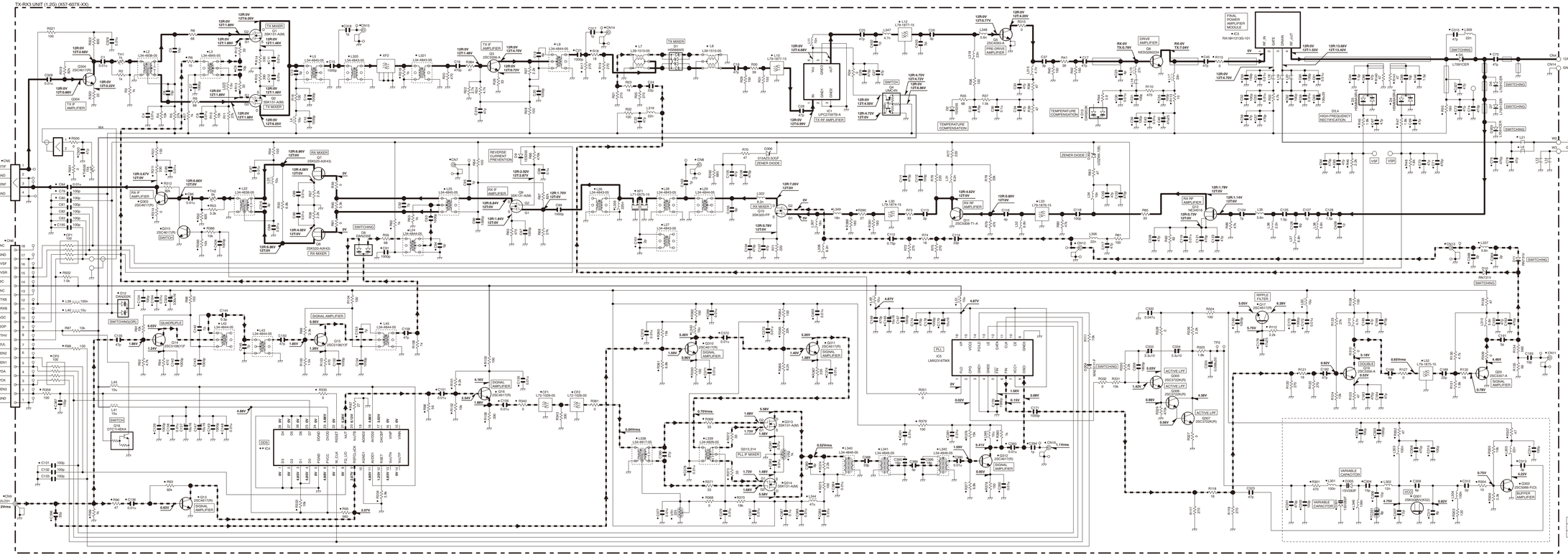
W1
E37-0975-25
E37-0975-25
E37-1435-05

SCHEMATIC DIAGRAM

TS-2000/B2000/2000X
TS-2000S/2000V/2000SX/2000VX



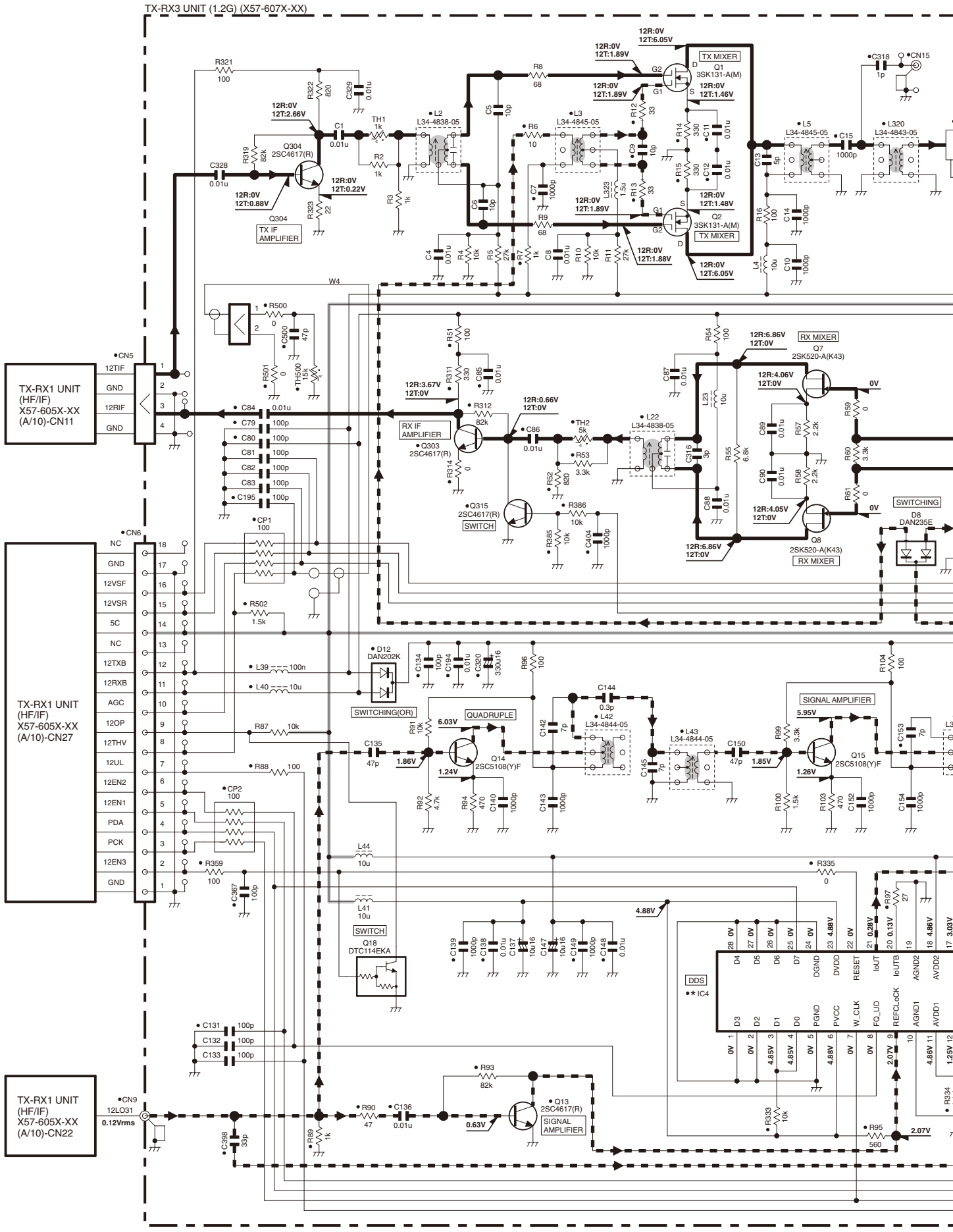
SCHEMATIC DIAGRAM

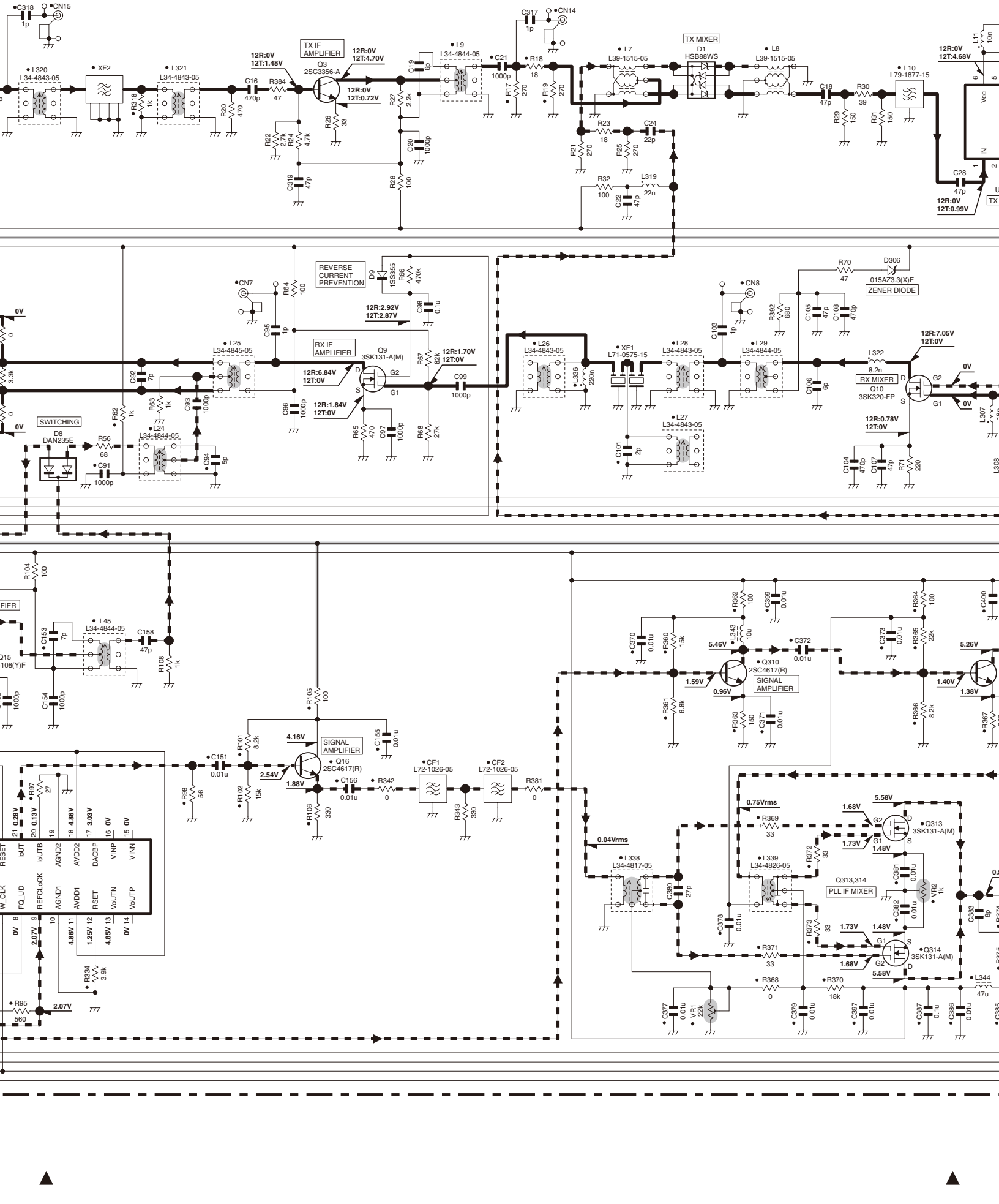


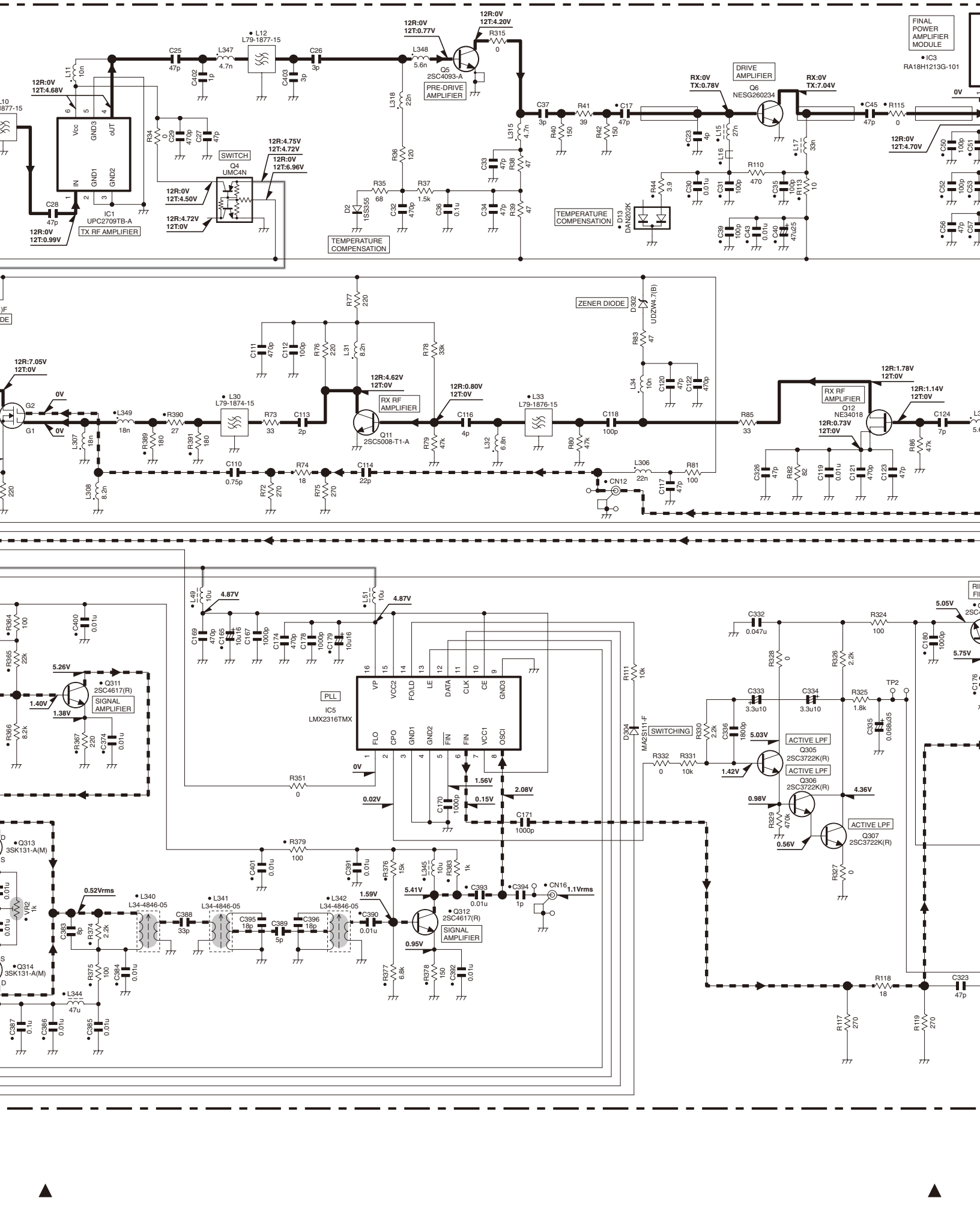
X57-607X-XX	IC4
0-00	J2,J3,K3
2-71	E5

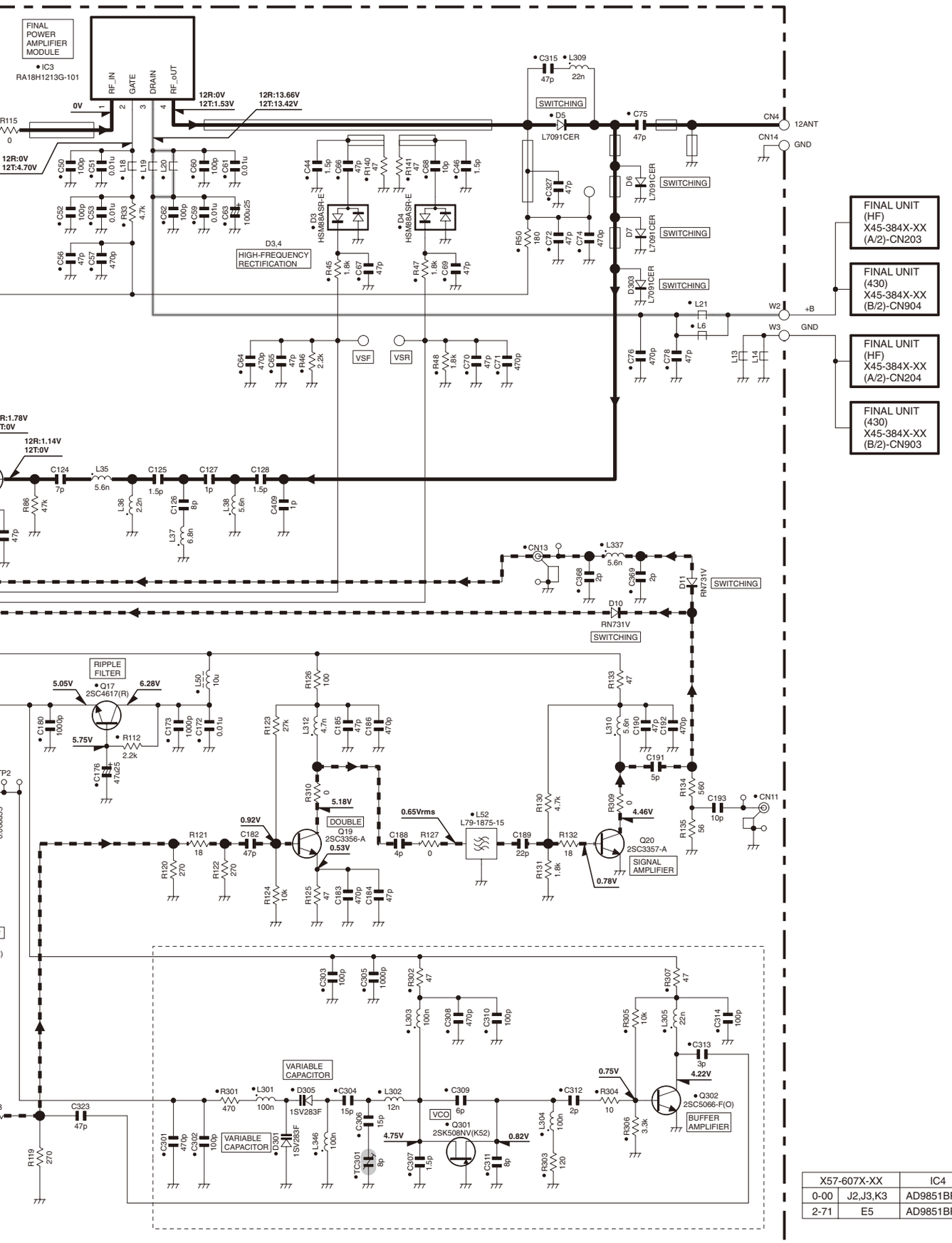
Note : The components marked with a dot (•) are parts of layer 1.

SCHEMATIC DIAGRAM




TX IF AMPLIFIER
TX MIXER
REVERSE CURRENT PREVENTION
RX IF AMPLIFIER
RX MIXER
SWITCHING
SIGNAL AMPLIFIER
PLL IF MIXER
ZENER DIODE
12R:0V 12T:1.48V
12R:0V 12T:4.70V
12R:0V 12T:0.72V
12R:0V 12T:4.68V
12R:0V 12T:0.99V
12R:2.92V 12T:2.87V
12R:6.84V 12T:0V
12R:1.84V 12T:0V
12R:1.70V 12T:0V
12R:7.05V 12T:0V
12R:0.78V 12T:0V
4.16V
2.54V
1.88V
5.46V
1.59V
0.96V
5.26V
1.40V
1.38V
0.75Vrms
0.04Vrms
2.07V
Q3 2SC3356-A
Q9 3SK131-A(M)
Q10 3SK320-FP
Q16 2SC4617(R)
Q310 2SC4617(R)
Q313 3SK131-A(M)
Q314 3SK131-A(M)
D1 HSB88WS
D8 DAN235E
D9 1SS355
D306 015AZ3.3(X)F
XF1 L71-0575-15
XF2
CF1 L72-1026-05
CF2 L72-1026-05
L7 L39-1515-05
L8 L39-1515-05
L10 L79-1877-15
L11 10n
L319 22n
L320 L34-4843-05
L321 L34-4843-05
L322 8.2n
L24 L34-4844-05
L25 L34-4845-05
L26 L34-4843-05
L27 L34-4843-05
L28 L34-4843-05
L29 L34-4844-05
L45 L34-4844-05
L338 L34-4817-05
L339 L34-4826-05
L344 47u
CN7
CN8
CN14
CN15
Vcc
IN
TX
RESET
IoUT
IoUTB
AGND2
AVDD2
DACBP
VINP
VINN
W_CLK
FQ_UD
REFCLoCK
AGND1
AVDD1
RSET
VoUTN
VoUTP


TX RF AMPLIFIER
IC1 UPC2709TB-A
SWITCH
Q4 UMC4N
PRE-DRIVE AMPLIFIER
Q5 2SC4093-A
DRIVE AMPLIFIER
Q6 NESG260234
FINAL POWER AMPLIFIER MODULE
IC3 RA18H1213G-101
TEMPERATURE COMPENSATION
ZENER DIODE
RX RF AMPLIFIER
Q11 2SC5008-T1-A
Q12 NE34018
PLL
IC5 LMX2316TMX
SIGNAL AMPLIFIER
Q311 2SC4617(R)
Q312 2SC4617(R)
Q313 3SK131-A(M)
Q314 3SK131-A(M)
SWITCHING
ACTIVE LPF
Q305 2SC3722K(R)
Q306 2SC3722K(R)
Q307 2SC3722K(R)

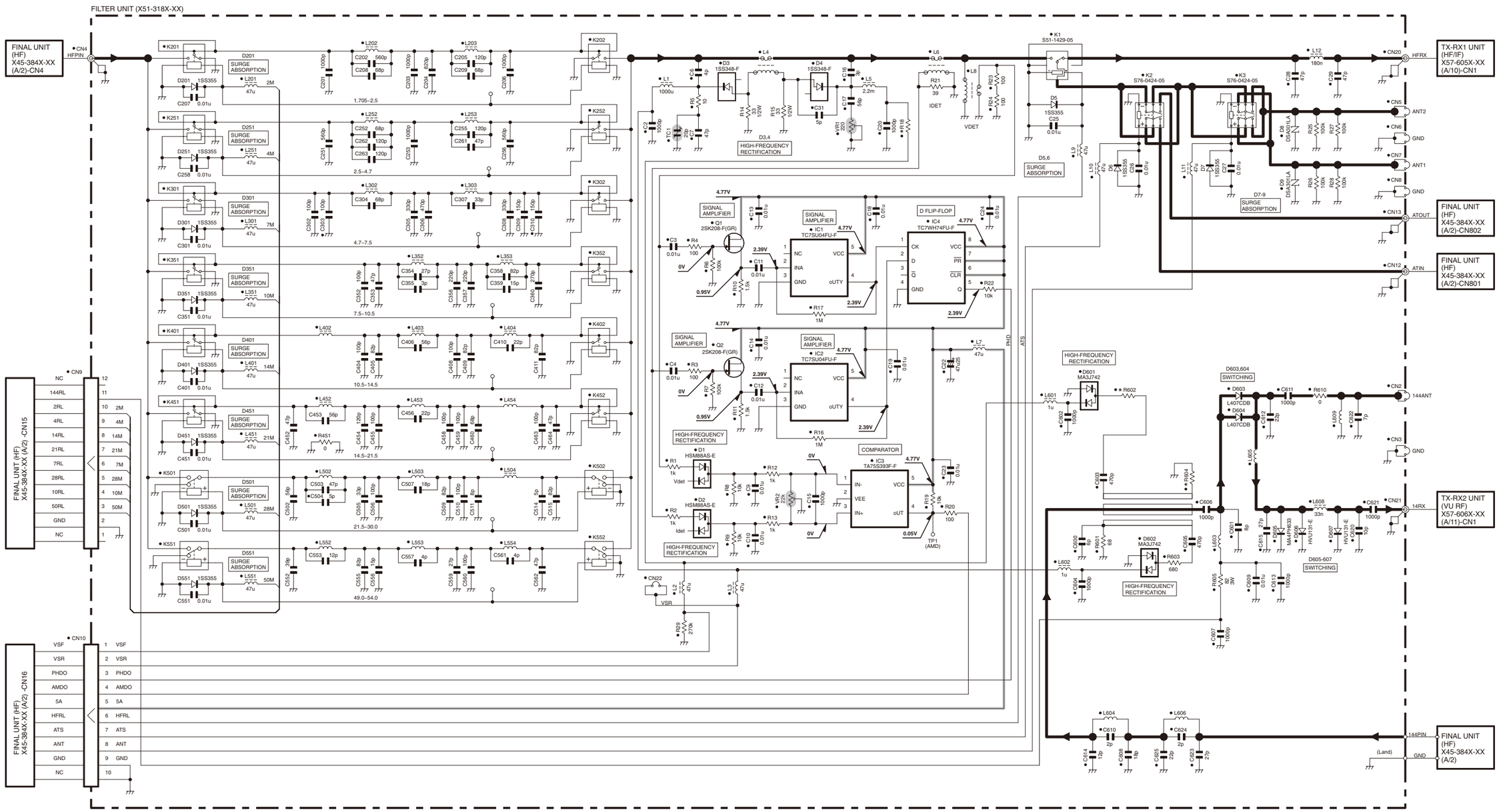


X57-607X-XX		IC4
0-00	J2,J3,K3	AD9851BRS
2-71	E5	AD9851BRSZ

Note : The components marked with a dot (•) are parts of layer 1.

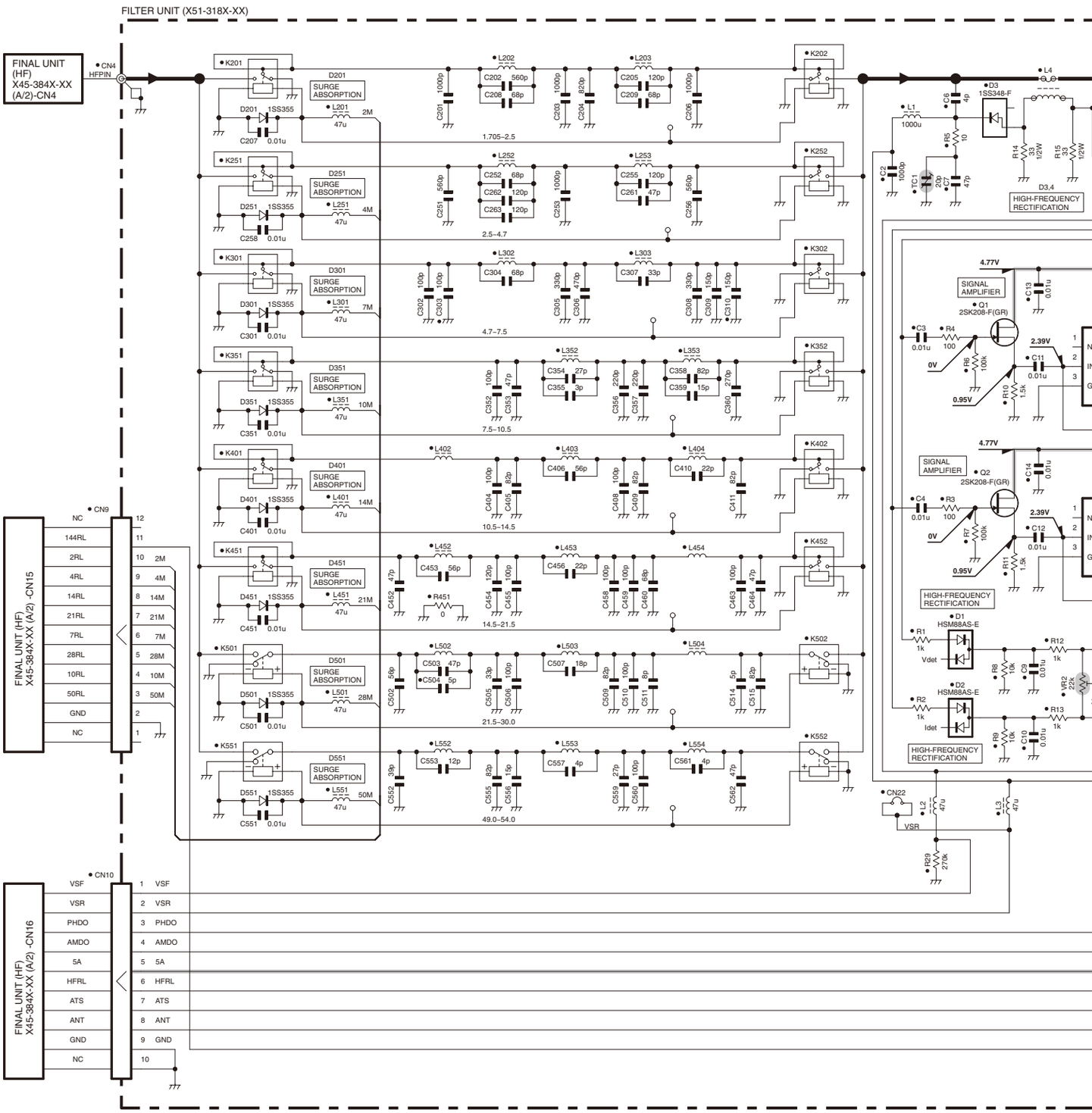
SCHEMATIC DIAGRAM

TS-2000/B2000/2000X
TS-2000S/2000V/2000SX/2000VX



X51-318X-XX		R18	R602	R604
0-00	J,J2,K1,K2,K3,E1,E2,E3,E4,E5	33k	820	68
0-01	J1,J3	4.7k	470	100

Note : The components marked with a dot (•) are parts of layer 1.

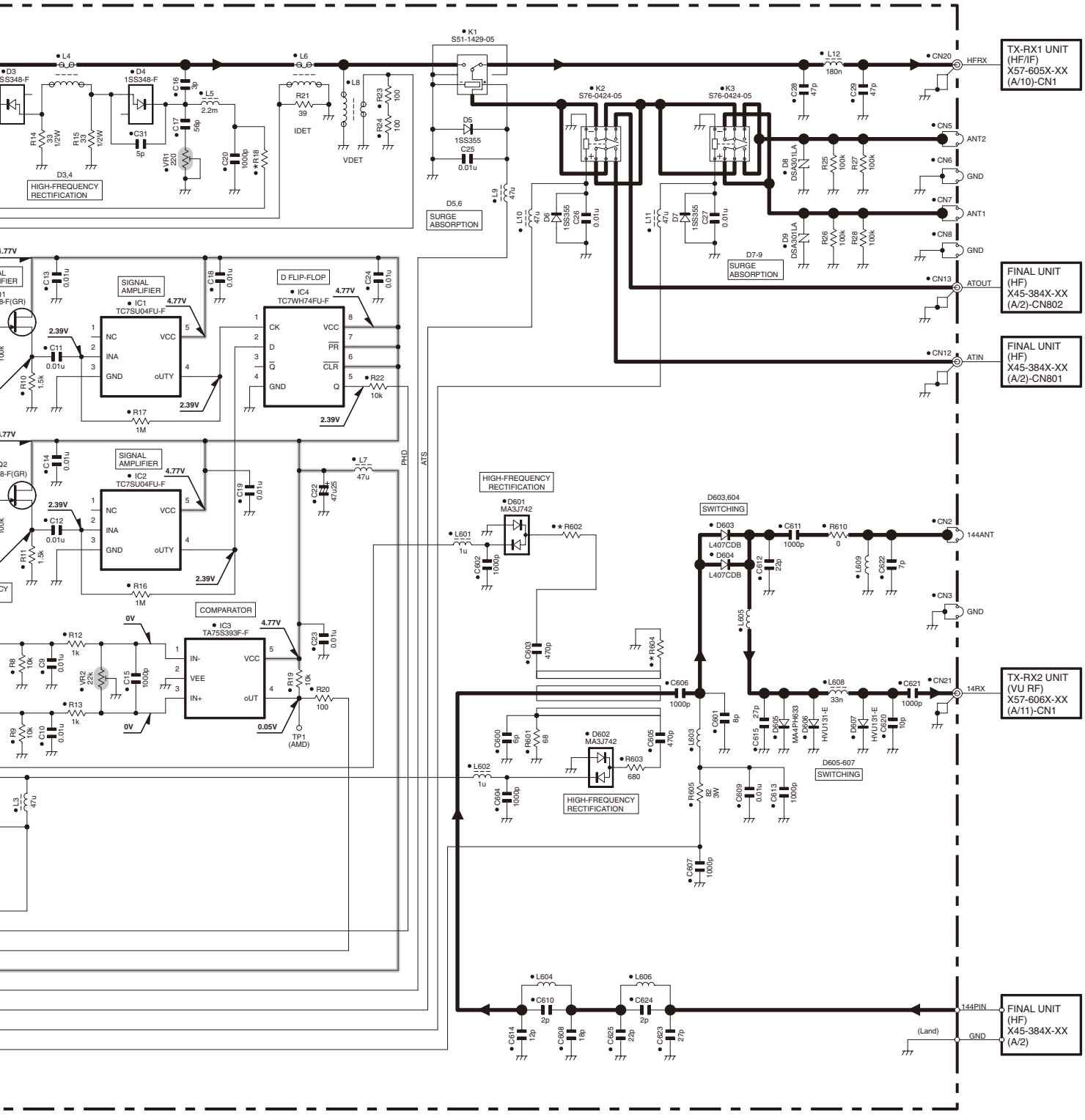


X51-318X-XX		R18	R602	R604
0-00	J,J2,K1,K2,K3,E1,E2,E3,E4,E5	33k	820	68
0-01	J1,J3	4.7k	470	100

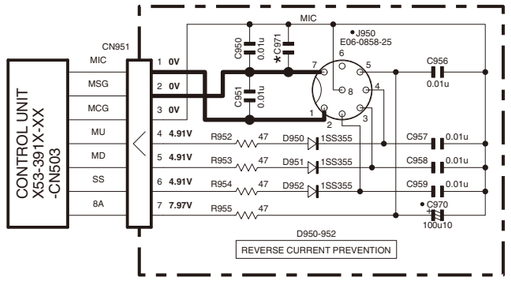
Note : The components marked with a dot (•) are parts of layer 1.

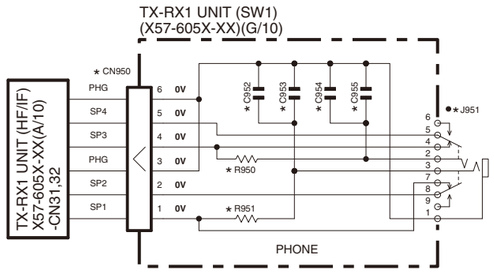
SCHEMATIC DIAGRAM

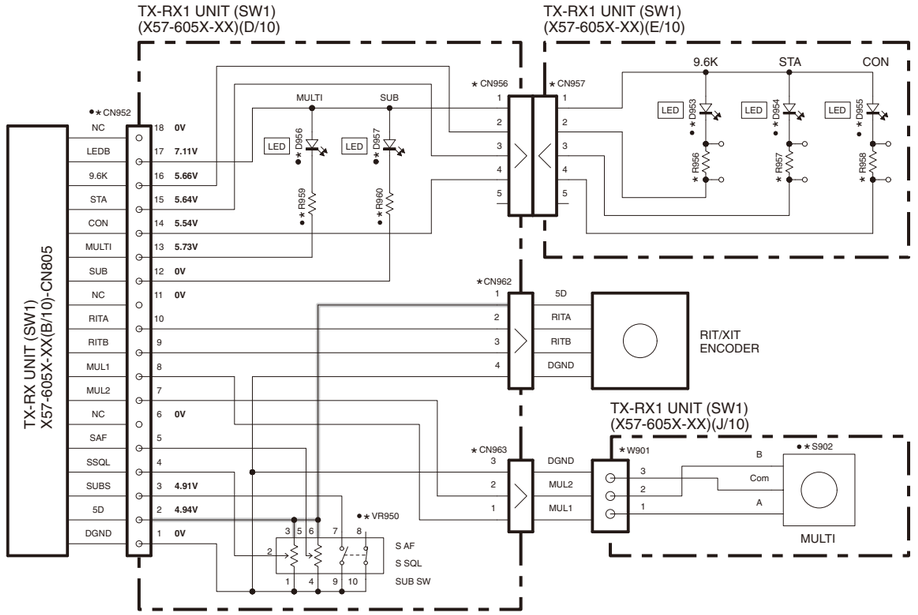
TS-2000/B2000/2000X
TS-2000S/2000V/2000SX/2000VX

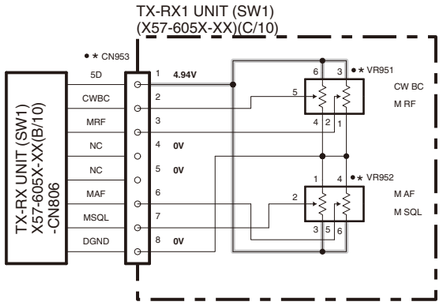


TS-2000/B2000/2000X
TS-2000S/2000V/2000SX/2000VX SCHEMATIC DIAGRAM

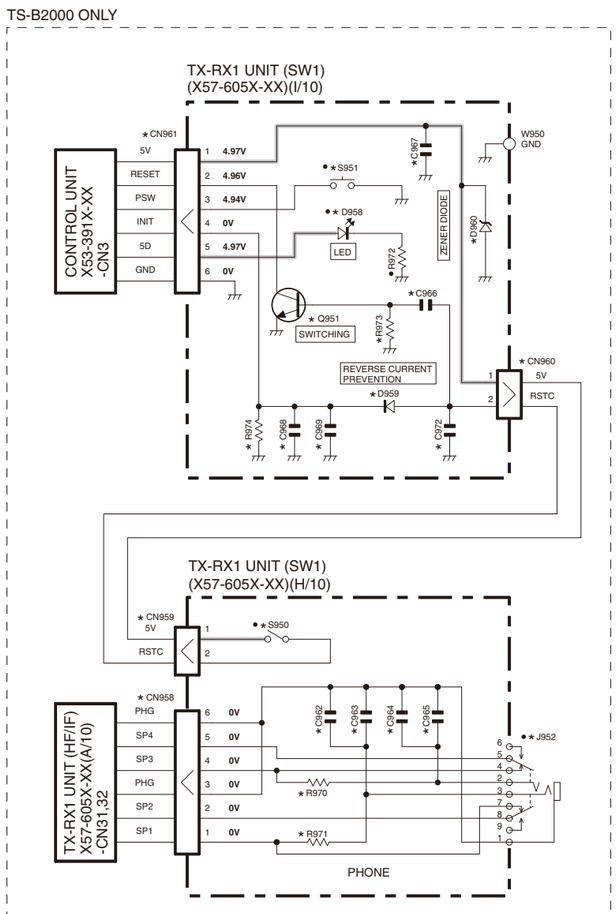








TS-B2000 ONLY

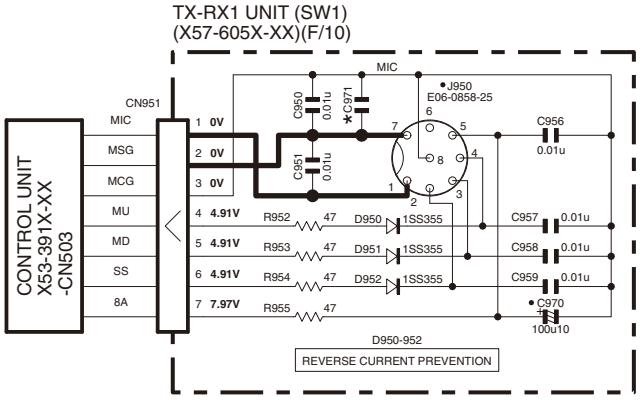


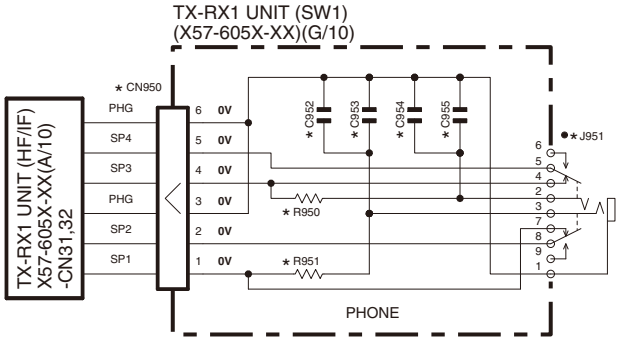
X57-605X-XX		CN950	CN952	CN953	CN956	CN957	CN958	CN959	CN960	CN961	CN962	CN963	D953	D954	D955	D956	D957	D958	D959	D960	J951	J952
0-00	J,J2	E41-1686-05	E40-6074-05	E40-6077-05	E40-6610-05	E40-6594-05	NO	NO	NO	NO	E41-1684-05	E41-1683-05	B30-2217-05	B30-2217-05	B30-2167-05	B30-2218-05	B30-2140-05	NO	NO	NO	E11-0705-05	NO
0-01	J1,J3	E41-1686-05	E40-6074-05	E40-6077-05	E40-6610-05	E40-6594-05	NO	NO	NO	NO	E41-1684-05	E41-1683-05	B30-2217-05	B30-2217-05	B30-2167-05	B30-2218-05	B30-2140-05	NO	NO	NO	E11-0705-05	NO
0-11	K1,K3	E41-1686-05	E40-6074-05	E40-6077-05	E40-6610-05	E40-6594-05	NO	NO	NO	NO	E41-1684-05	E41-1683-05	B30-2217-05	B30-2217-05	B30-2167-05	B30-2218-05	B30-2140-05	NO	NO	NO	E11-0705-05	NO
0-12	K2	NO	NO	NO	NO	NO	E41-1686-05	E41-1682-05	E41-1682-05	E41-1686-05	NO	NO	NO	NO	NO	NO	NO	B30-2168-05	1SS355	UDZS6.2B	NO	E11-0705-05
2-71	E1,E3,E5	E41-1686-05	E40-6074-05	E40-6077-05	E40-6610-05	E40-6594-05	NO	NO	NO	NO	E41-1684-05	E41-1683-05	B30-2217-05	B30-2217-05	B30-2167-05	B30-2218-05	B30-2140-05	NO	NO	NO	E11-0705-05	NO
2-72	E2,E4	NO	NO	NO	NO	NO	E41-1686-05	E41-1682-05	E41-1682-05	E41-1686-05	NO	NO	NO	NO	NO	NO	NO	B30-2168-05	1SS355	UDZS6.2B	NO	E11-0705-05

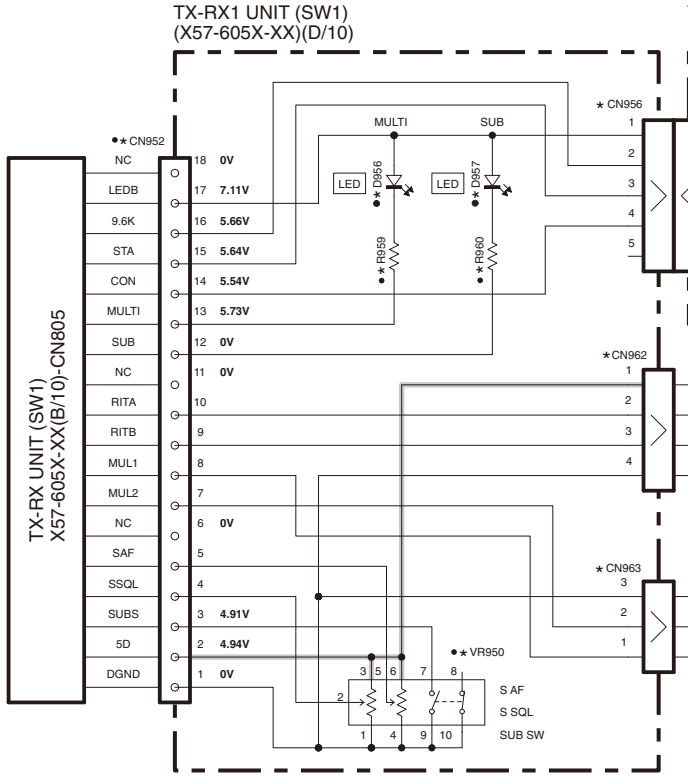
X57-605X-XX		Q951	S902	S950	S951	VR950	VR951	VR952	W901	R950	R951	R956	R957	R958	R959	R960	R970	R971	R972	R973	R974	C952	C953	C954	C955	C962	C963	C964	C965	C966	C967	C968	C969	C971	C972
0-00	J,J2	NO	T99-0653-05	NO	NO	R31-0633-05	R31-0637-05	R31-0634-05	E37-1418-05	120	120	680	680	680	680	680	NO	NO	NO	NO	NO	1u	1u	1u	1u	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
0-01	J1,J3	NO	T99-0653-05	NO	NO	R31-0633-05	R31-0637-05	R31-0634-05	E37-1418-05	120	120	680	680	680	680	680	NO	NO	NO	NO	NO	1u	1u	1u	1u	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
0-11	K1,K3	NO	T99-0653-05	NO	NO	R31-0633-05	R31-0637-05	R31-0634-05	E37-1418-05	120	120	680	680	680	680	680	NO	NO	NO	NO	NO	1u	1u	1u	1u	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
0-12	K2	2SC4617(R)	NO	S70-0461-05	S70-0475-15	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	120	120	150	47k	470k	NO	NO	NO	NO	1u	1u	1u	1u	0.1u	1u	1u	1u	NO	1u
2-71	E1,E3,E5	NO	T99-0653-05	NO	NO	R31-0633-05	R31-0637-05	R31-0634-05	E37-1418-05	120	120	680	680	680	680	680	NO	NO	NO	NO	NO	1u	1u	1u	1u	NO	NO	NO	NO	NO	NO	NO	NO	0.47u	NO
2-72	E2,E4	2SC4617(R)	NO	S70-0461-05	S70-0475-15	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	120	120	150	47k	470k	NO	NO	NO	NO	1u	1u	1u	1u	0.1u	1u	1u	1u	0.47u	1u

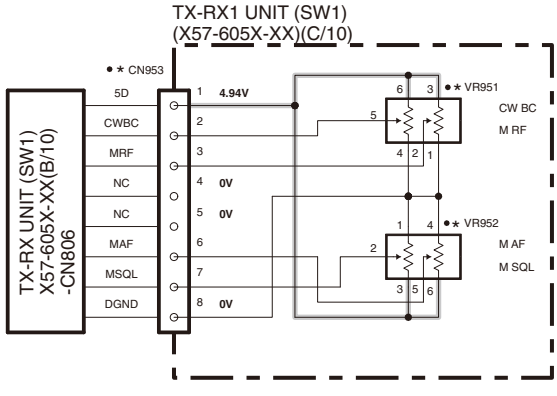
Note : The components marked with a dot (•) are parts of layer 1.

TS-2000/B2000/2000X TS-2000S/2000V/2000SX/2000VX SCHEMATIC DIAGRAM





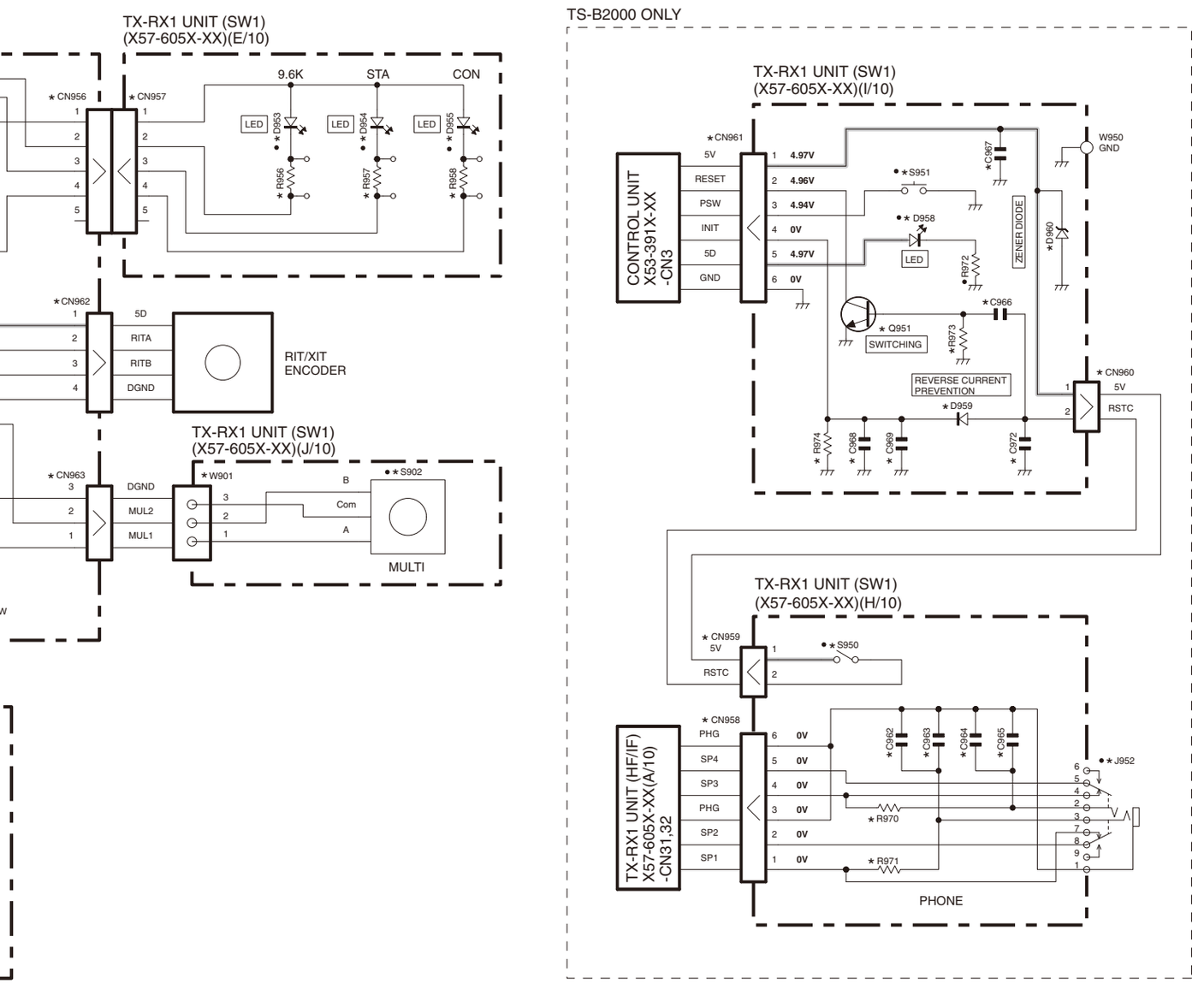




X57-605X-XX		CN950	CN952	CN953	CN956	CN957	CN958	CN959	CN960	CN961	CN962	C
0-00	J,J2	E41-1686-05	E40-6074-05	E40-6077-05	E40-6610-05	E40-6594-05	NO	NO	NO	NO	E41-1684-05	E41-
0-01	J1,J3	E41-1686-05	E40-6074-05	E40-6077-05	E40-6610-05	E40-6594-05	NO	NO	NO	NO	E41-1684-05	E41-
0-11	K1,K3	E41-1686-05	E40-6074-05	E40-6077-05	E40-6610-05	E40-6594-05	NO	NO	NO	NO	E41-1684-05	E41-
0-12	K2	NO	NO	NO	NO	NO	E41-1686-05	E41-1682-05	E41-1682-05	E41-1686-05	NO	
2-71	E1,E3,E5	E41-1686-05	E40-6074-05	E40-6077-05	E40-6610-05	E40-6594-05	NO	NO	NO	NO	E41-1684-05	E41-
2-72	E2,E4	NO	NO	NO	NO	NO	E41-1686-05	E41-1682-05	E41-1682-05	E41-1686-05	NO	

X57-605X-XX		Q951	S902	S950	S951	VR950	VR951	VR952	W901	R950	R951	R956	R957	R958	R95
0-00	J,J2	NO	T99-0653-05	NO	NO	R31-0633-05	R31-0637-05	R31-0634-05	E37-1418-05	120	120	680	680	680	680
0-01	J1,J3	NO	T99-0653-05	NO	NO	R31-0633-05	R31-0637-05	R31-0634-05	E37-1418-05	120	120	680	680	680	680
0-11	K1,K3	NO	T99-0653-05	NO	NO	R31-0633-05	R31-0637-05	R31-0634-05	E37-1418-05	120	120	680	680	680	680
0-12	K2	2SC4617(R)	NO	S70-0461-05	S70-0475-15	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
2-71	E1,E3,E5	NO	T99-0653-05	NO	NO	R31-0633-05	R31-0637-05	R31-0634-05	E37-1418-05	120	120	680	680	680	680
2-72	E2,E4	2SC4617(R)	NO	S70-0461-05	S70-0475-15	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

Note : The components marked with a dot (•) are parts of layer 1.

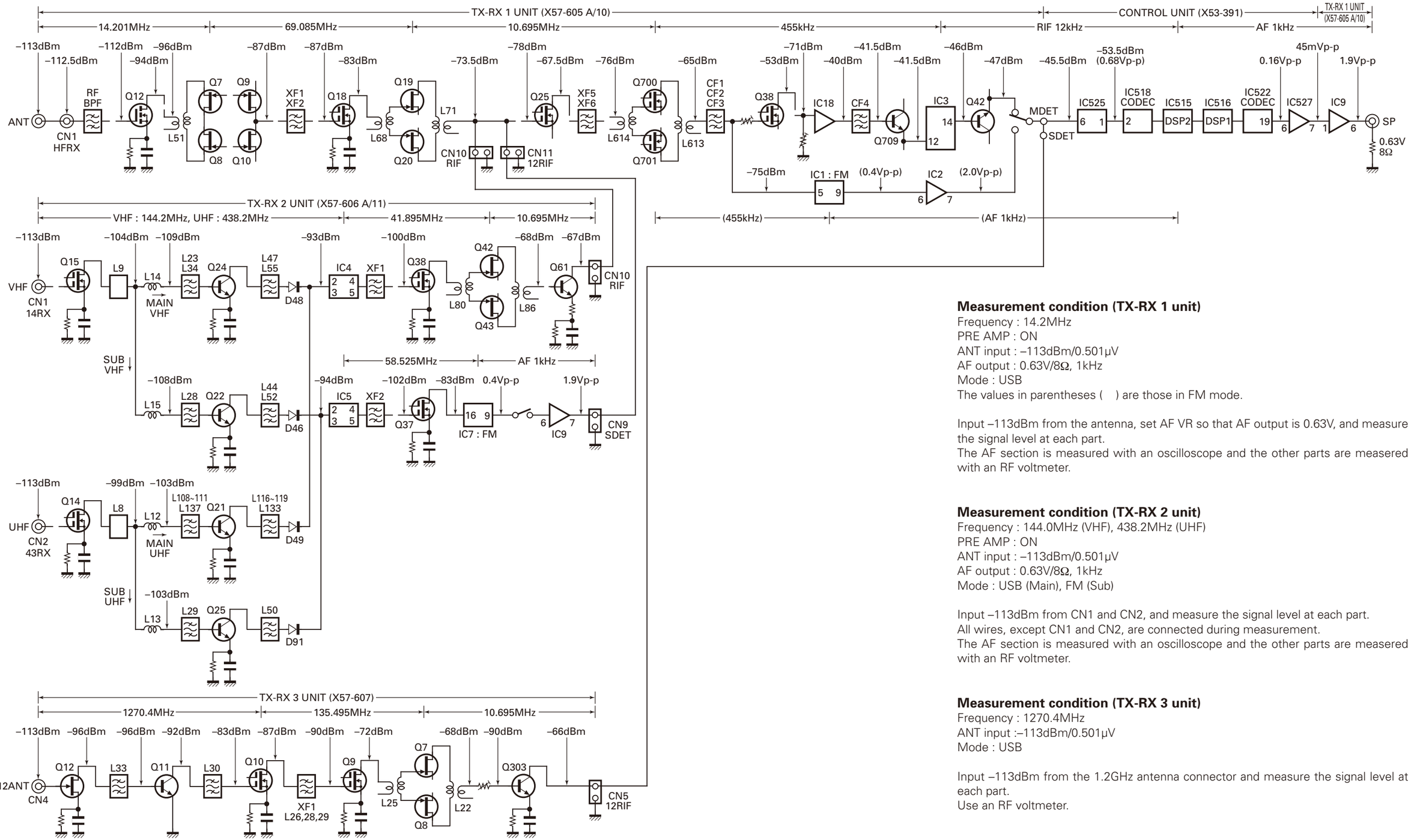


CN962	CN963	D953	D954	D955	D956	D957	D958	D959	D960	J951	J952
E41-1684-05	E41-1683-05	B30-2217-05	B30-2217-05	B30-2167-05	B30-2218-05	B30-2140-05	NO	NO	NO	E11-0705-05	NO
E41-1684-05	E41-1683-05	B30-2217-05	B30-2217-05	B30-2167-05	B30-2218-05	B30-2140-05	NO	NO	NO	E11-0705-05	NO
E41-1684-05	E41-1683-05	B30-2217-05	B30-2217-05	B30-2167-05	B30-2218-05	B30-2140-05	NO	NO	NO	E11-0705-05	NO
NO	NO	NO	NO	NO	NO	NO	B30-2168-05	1SS355	UDZS6.2B	NO	E11-0705-05
E41-1684-05	E41-1683-05	B30-2217-05	B30-2217-05	B30-2167-05	B30-2218-05	B30-2140-05	NO	NO	NO	E11-0705-05	NO
NO	NO	NO	NO	NO	NO	NO	B30-2168-05	1SS355	UDZS6.2B	NO	E11-0705-05

R957	R958	R959	R960	R970	R971	R972	R973	R974	C952	C953	C954	C955	C962	C963	C964	C965	C966	C967	C968	C969	C971	C972
680	680	680	680	NO	NO	NO	NO	NO	1u	1u	1u	1u	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
680	680	680	680	NO	NO	NO	NO	NO	1u	1u	1u	1u	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
680	680	680	680	NO	NO	NO	NO	NO	1u	1u	1u	1u	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
NO	NO	NO	NO	120	120	150	47k	470k	NO	NO	NO	NO	1u	1u	1u	1u	0.1u	1u	1u	1u	NO	1u
680	680	680	680	NO	NO	NO	NO	NO	1u	1u	1u	1u	NO	NO	NO	NO	NO	NO	NO	NO	0.47u	NO
NO	NO	NO	NO	120	120	150	47k	470k	NO	NO	NO	NO	1u	1u	1u	1u	0.1u	1u	1u	1u	0.47u	1u

TS-2000/B2000/2000X
TS-2000S/2000V/2000SX/2000VX

LEVEL DIAGRAM (RX SECTION)



Measurement condition (TX-RX 1 unit)
Frequency : 14.2MHz
PRE AMP : ON
ANT input : –113dBm/0.501µV
AF output : 0.63V/8Ω, 1kHz
Mode : USB
The values in parentheses ( ) are those in FM mode.

Input –113dBm from the antenna, set AF VR so that AF output is 0.63V, and measure the signal level at each part.
The AF section is measured with an oscilloscope and the other parts are measered with an RF voltmeter.

Measurement condition (TX-RX 2 unit)
Frequency : 144.0MHz (VHF), 438.2MHz (UHF)
PRE AMP : ON
ANT input : –113dBm/0.501µV
AF output : 0.63V/8Ω, 1kHz
Mode : USB (Main), FM (Sub)

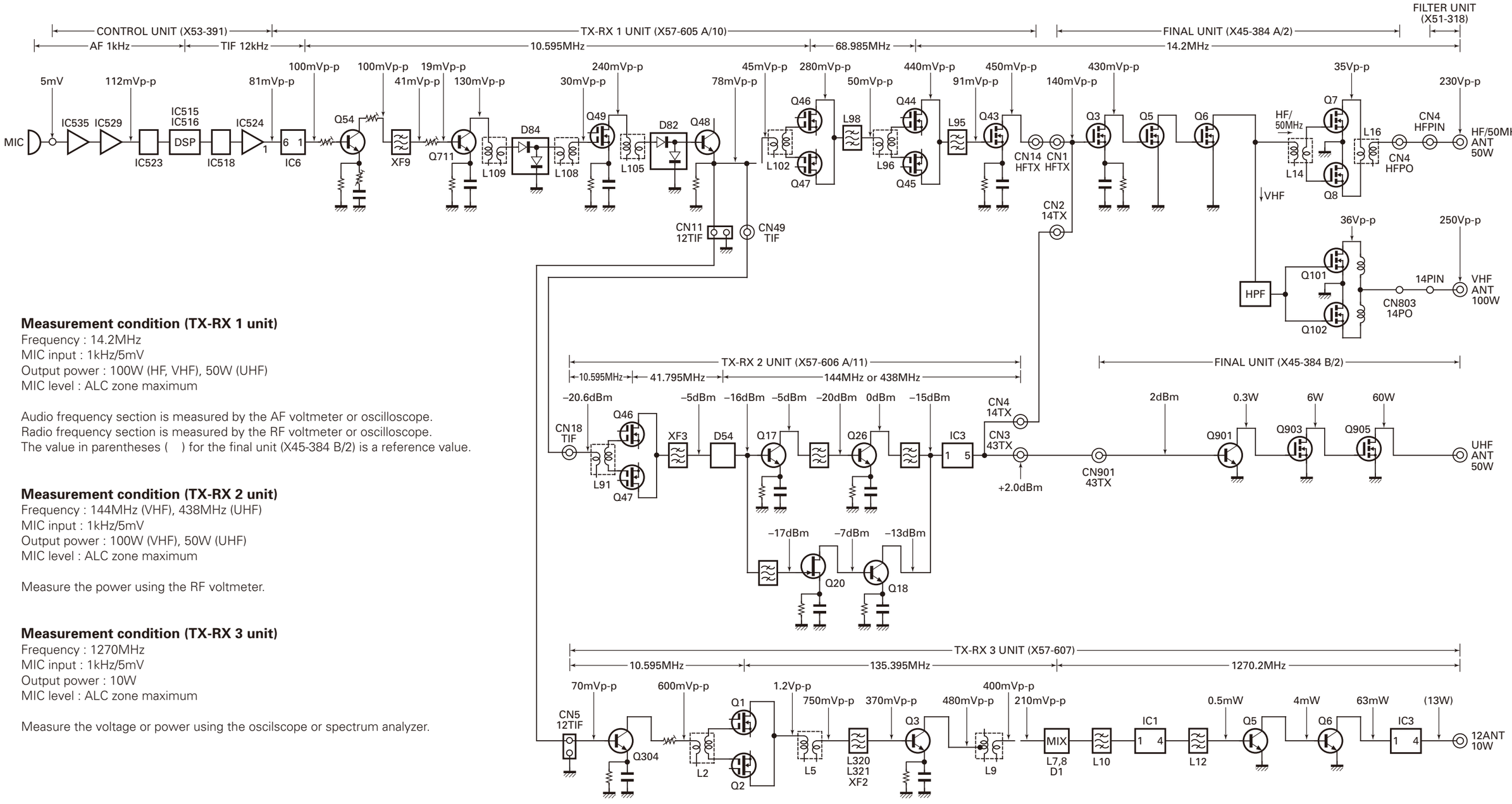
Input –113dBm from CN1 and CN2, and measure the signal level at each part.
All wires, except CN1 and CN2, are connected during measurement.
The AF section is measured with an oscilloscope and the other parts are measered with an RF voltmeter.

Measurement condition (TX-RX 3 unit)
Frequency : 1270.4MHz
ANT input :–113dBm/0.501µV
Mode : USB

Input –113dBm from the 1.2GHz antenna connector and measure the signal level at each part.
Use an RF voltmeter.

TS-2000/B2000/2000X
TS-2000S/2000V/2000SX/2000VX

LEVEL DIAGRAM (TX SECTION)



Measurement condition (TX-RX 1 unit)
Frequency : 14.2MHz
MIC input : 1kHz/5mV
Output power : 100W (HF, VHF), 50W (UHF)
MIC level : ALC zone maximum

Audio frequency section is measured by the AF voltmeter or oscilloscope.
Radio frequency section is measured by the RF voltmeter or oscilloscope.
The value in parentheses ( ) for the final unit (X45-384 B/2) is a reference value.

Measurement condition (TX-RX 2 unit)
Frequency : 144MHz (VHF), 438MHz (UHF)
MIC input : 1kHz/5mV
Output power : 100W (VHF), 50W (UHF)
MIC level : ALC zone maximum

Measure the power using the RF voltmeter.

Measurement condition (TX-RX 3 unit)
Frequency : 1270MHz
MIC input : 1kHz/5mV
Output power : 10W
MIC level : ALC zone maximum

Measure the voltage or power using the oscilscope or spectrum analyzer.

TS-2000/B2000/2000X
TS-2000S/2000V/2000SX/2000VX

Kenwood Corporation

2967-3, Ishikawa-machi, Hachioji-shi, Tokyo, 192-8525 Japan

Kenwood U.S.A. Corporation

P.O. BOX 22745, 2201 East Dominguez Street, Long Beach, CA 90801-5745, U.S.A.

Kenwood Electronics Canada Inc.

6070 Kestrel Road, Mississauga, Ontario, Canada L5T 1S8

Kenwood Electronics Deutschland GmbH

Rembrücker Str. 15, 63150 Heusenstamm, Germany

Kenwood Electronics Belgium N.V.

Leuvensesteenweg 248 J, 1800 Vilvoorde, Belgium

Kenwood Electronics France S.A.

L'Etoile Paris Nord 2, 50 Allée des Impressionnistes, Bp 58416 Villepinte, 95944 Roissy Ch De Gaulle Cedex

Kenwood Electronics UK Limited

KENWOOD House, Dwight Road, Watford, Herts., WD18 9EB United Kingdom

Kenwood Electronics Europe B.V.

Amsterdamseweg 37, 1422 AC Uithoorn, The Netherlands

Kenwood Electronics Italia S.p.A.

Via G. Sirtori, 7/9 20129 Milano, Italy

Kenwood Ibérica, S.A.

Bolivia, 239-08020 Barcelona, Spain

Kenwood Electronics Australia Pty. Ltd.

(A.C.N. 001 499 074)
16 Giffnock Avenue, Centrecourt Estate, North Ryde, N.S.W. 2113 Australia

Kenwood Electronics (Hong Kong) Ltd.

Unit 3712-3724, Level 37, Tower one Metroplaza, 223 Hing Fong Road, Kwai Fong, N.T., Hong Kong

Kenwood Electronics Singapore Pte Ltd

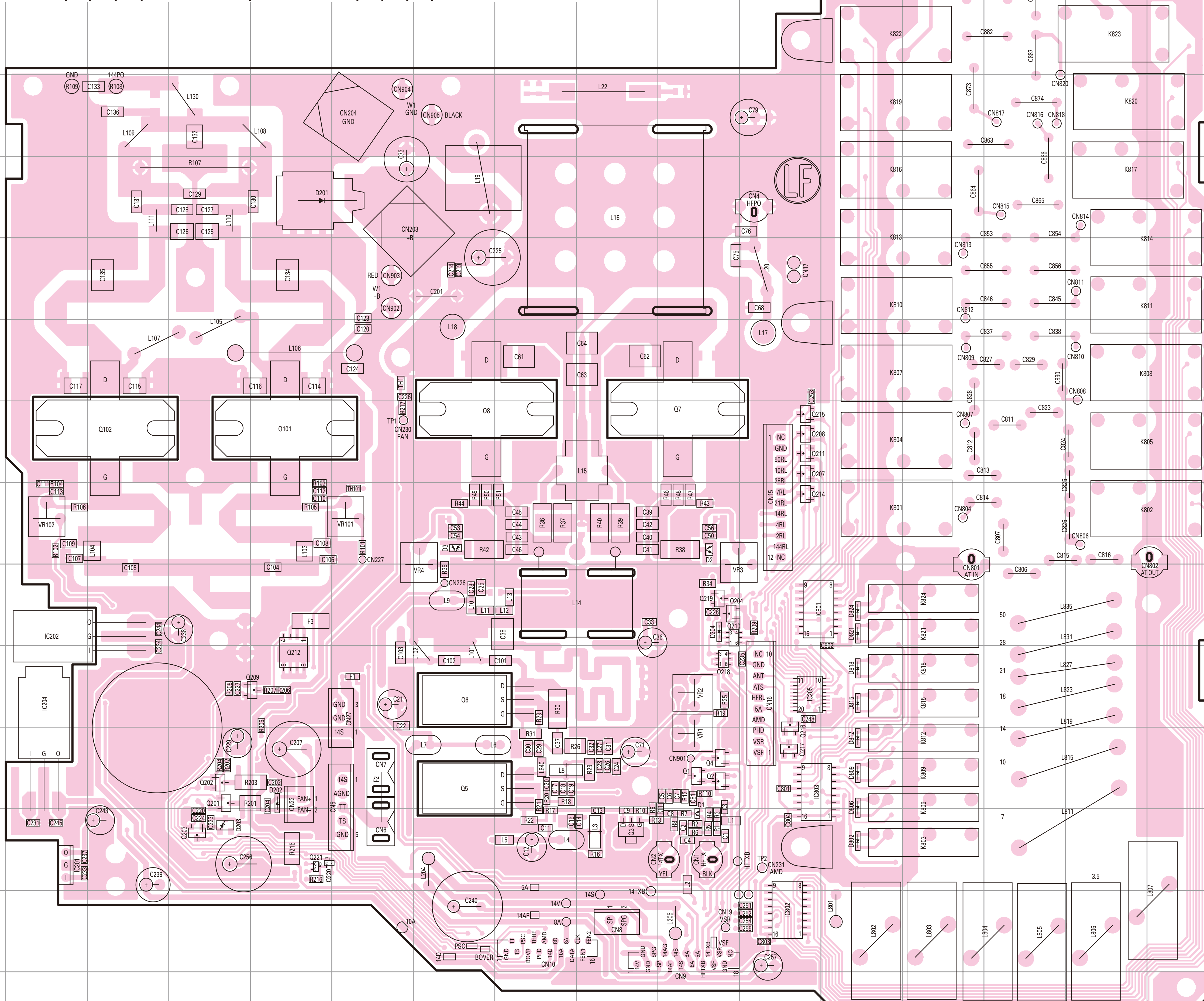
1 Ang Mo Kio Street 63, Singapore 569110



PC BOARD TS-2000/B2000/2000X TS-2000S/2000V/2000SX/2000VX

FINAL UNIT (X45-384X-XX) (A/2) Component side view (J79-0192-19 A/2)

0-00 : J,J2,K1,K2,K3 0-01 : J1,J3 2-71 : E1,E2,E3,E4,E5



Ref. No.	Address	Ref. No.	Address
IC201	12B	Q211	7K
IC202	9B	Q212	10E
IC204	10B	Q214	8K
IC205	10K	Q215	7K
IC801	9K	Q216	11K
IC802	13K	Q217	11K
IC803	11K	Q218	10J
Q1	11J	Q219	9J
Q2	11J	Q220	12E
Q3	12I	Q221	12E
Q4	11J	D1	12J
Q5	11G	D2	8J
Q6	10G	D3	8G
Q7	7J	D201	4E
Q8	7G	D202	11E
Q101	7E	D203	12D
Q102	7C	D204	9J
Q201	11D	D802	12L
Q202	11D	D806	11L
Q203	12D	D809	11L
Q204	9J	D812	11L
Q207	7K	D815	10L
Q208	7K	D818	10L
Q209	10E	D821	9L
Q210	9J	D824	9L

TS-2000/B2000/2000X
TS-2000S/2000V/2000SX/2000VX **PC BOARD**

J79-0192-19 A/2

FINAL UNIT (X45-384X-XX) (A/2) Foil side view (J79-0192-19 A/2)
0-00 : J,J2,K1,K2,K3 0-01 : J1,J3 2-71 : E1,E2,E3,E4,E5

Ref. No.	Address
IC203	10Q
Q205	9I
Q206	9J
Q213	9J
D205	9I
D206	9I
D207	9I
D208	9I
D801	8D
D803	8H
D804	7H
D805	7D
D807	6H
D808	6D
D810	5H
D811	5D
D813	4H
D814	4D
D816	4H
D817	3D
D819	3H
D820	3D
D822	2H
D823	2D

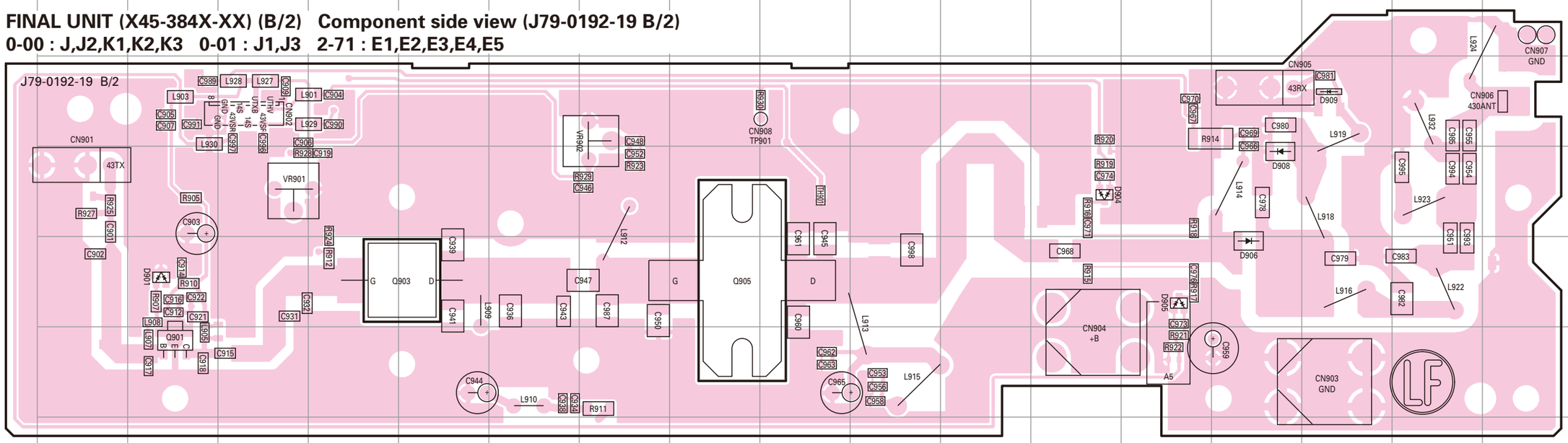
Component side
Layer 1
Layer 2
Foil side

PC BOARD

TS-2000/B2000/2000X
TS-2000S/2000V/2000SX/2000VX

FINAL UNIT (X45-384X-XX) (B/2) Component side view (J79-0192-19 B/2)

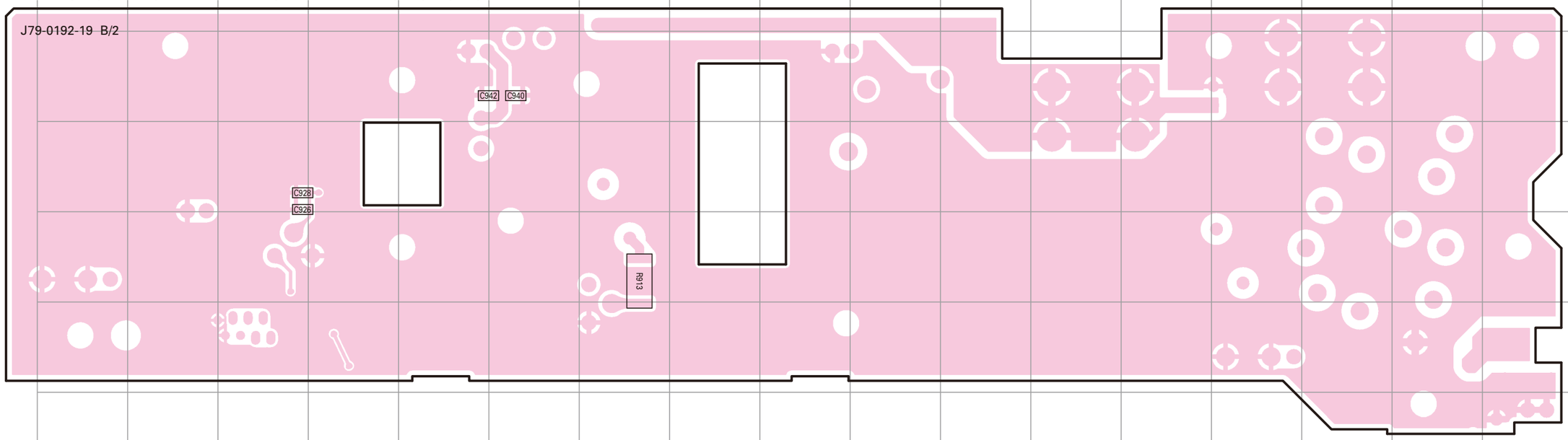
0-00 : J,J2,K1,K2,K3 0-01 : J1,J3 2-71 : E1,E2,E3,E4,E5



Ref. No.	Address
Q901	6B
Q903	5E
Q905	5H
D901	5B
D904	4L
D905	5M
D906	5N
D908	4N
D909	3O

FINAL UNIT (X45-384X-XX) (B/2) Foil side view (J79-0192-19 B/2)

0-00 : J,J2,K1,K2,K3 0-01 : J1,J3 2-71 : E1,E2,E3,E4,E5



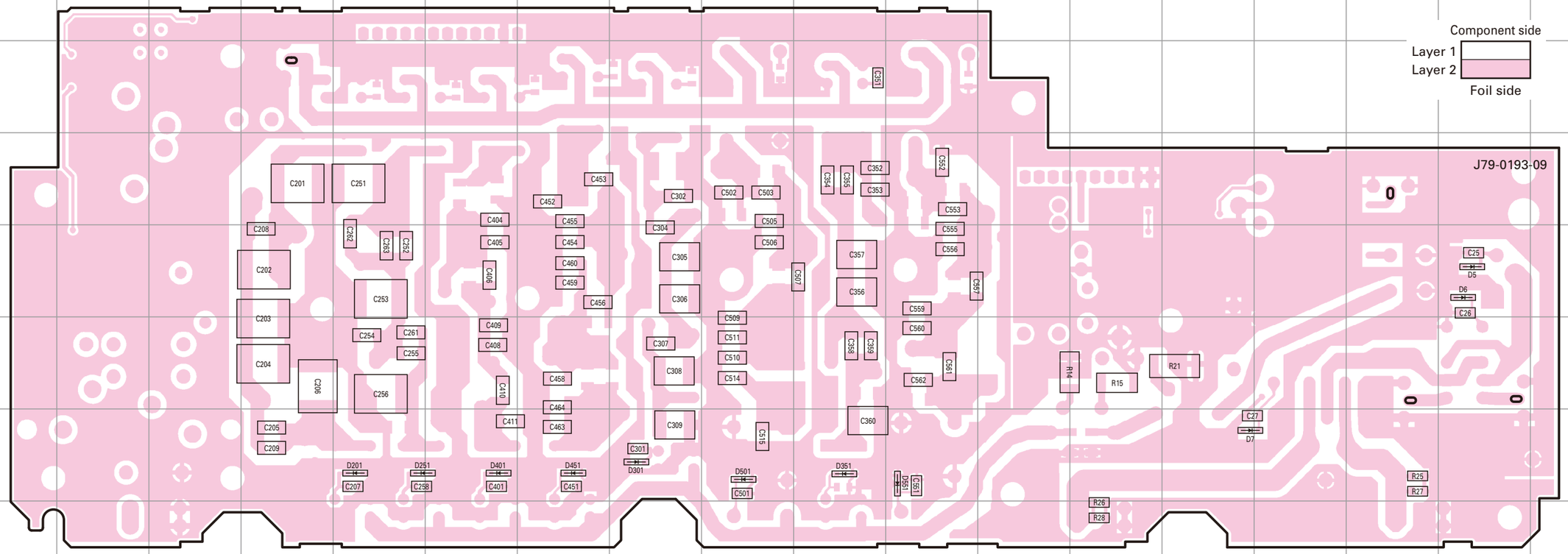
TS-2000/B2000/2000X
TS-2000S/2000V/2000SX/2000VX **PC BOARD**

FILTER UNIT (X51-318X-XX) 0-00 : J,J2,K1,K2,K3,E1,E2,E3,E4,E5 0-01 : J1,J3 Component side view (J79-0193-09)



Ref. No.	Address
IC1	5N
IC2	5M
IC3	5N
IC4	5M
Q1	5N
Q2	5M
D1	5N
D2	5N
D3	3L
D4	3M
D8	3Q
D9	2N
D601	5B
D602	5C
D603	3C
D604	4C
D605	4A
D606	4A
D607	5A

FILTER UNIT (X51-318X-XX) 0-00 : J,J2,K1,K2,K3,E1,E2,E3,E4,E5 0-01 : J1,J3 Foil side view (J79-0193-09)

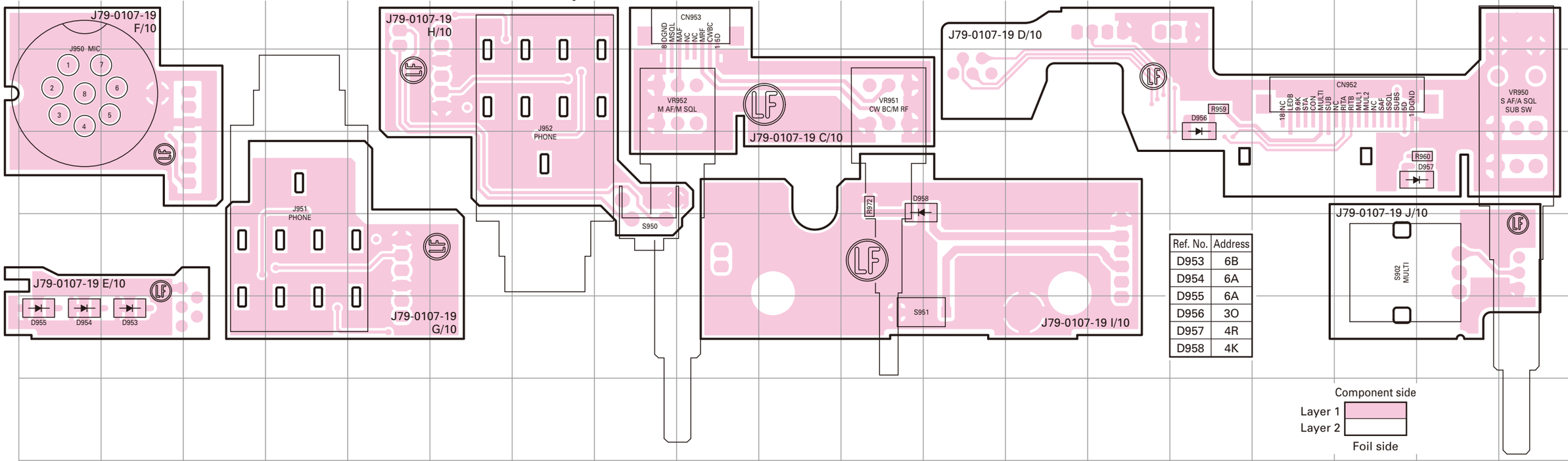


Ref. No.	Address
D5	11Q
D6	11Q
D7	13N
D201	13E
D251	13E
D301	13H
D351	13J
D401	13F
D451	13G
D501	13I
D551	13K

PC BOARD

TS-2000/B2000/2000X
TS-2000S/2000V/2000SX/2000VX

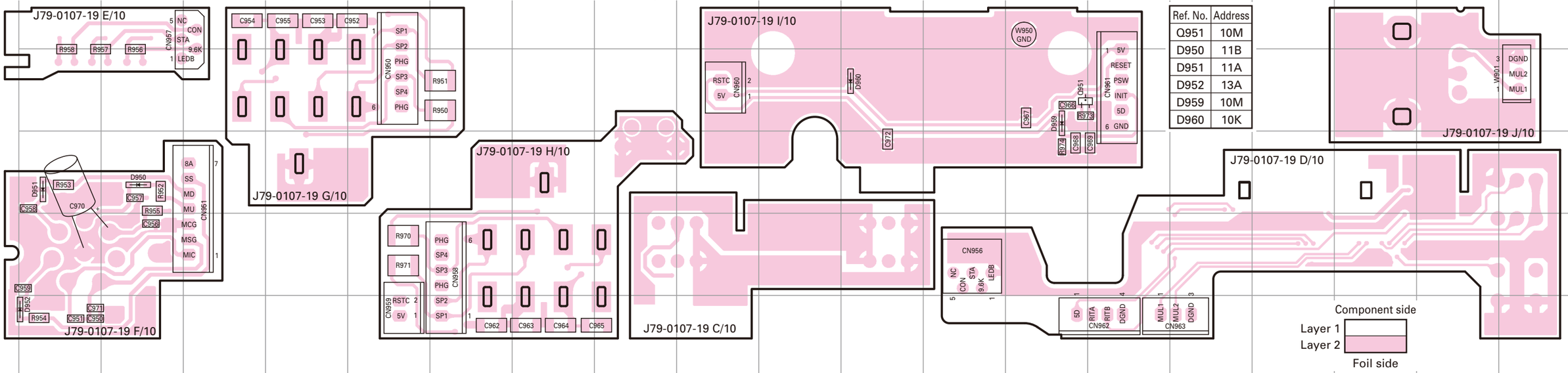
TX-RX 1 UNIT (X57-605X-XX) (C,D,E,F,G,J/10) 0-00 : J,J2 0-01 : J1,J3 0-11 : K1,K3 2-71 : E1,E3,E5 Component side view (J79-0107-19 C,D,E,F,G,J/10)
TX-RX 1 UNIT (X57-605X-XX) (F,H,I/10) 0-12 : K2 2-72 : E2,E4 Component side view (J79-0107-19 F,H,I/10)



Ref. No.	Address
D953	6B
D954	6A
D955	6A
D956	3O
D957	4R
D958	4K

Component side
Layer 1
Layer 2
Foil side

TX-RX 1 UNIT (X57-605X-XX) (C,D,E,F,G,J/10) 0-00 : J,J2 0-01 : J1,J3 0-11 : K1,K3 2-71 : E1,E3,E5 Foil side view (J79-0107-19 C,D,E,F,G,J/10)
TX-RX 1 UNIT (X57-605X-XX) (F,H,I/10) 0-12 : K2 2-72 : E2,E4 Foil side view (J79-0107-19 F,H,I/10)

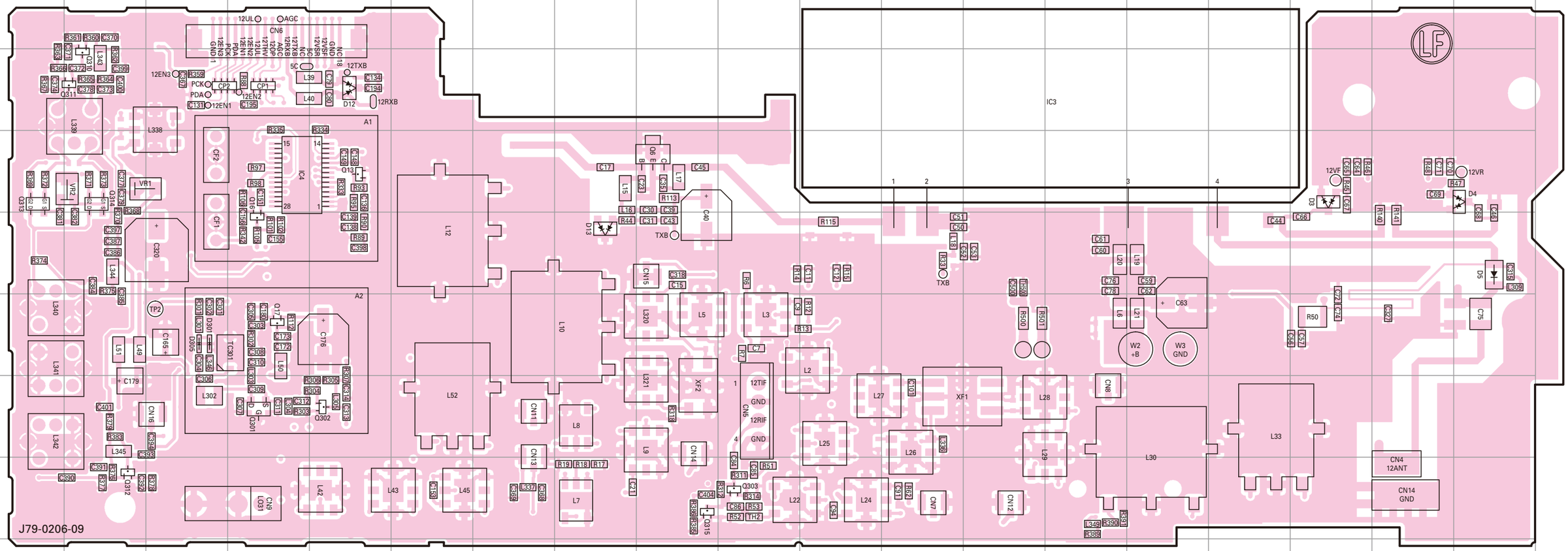


Ref. No.	Address
Q951	10M
D950	11B
D951	11A
D952	13A
D959	10M
D960	10K

Component side
Layer 1
Layer 2
Foil side

TS-2000/B2000/2000X
TS-2000S/2000V/2000SX/2000VX **PC BOARD**

TX-RX 3 UNIT (UT-20) (X57-607X-XX) 0-00 : J2,J3,K3 2-71 : E5 Component side view (J79-0206-09)

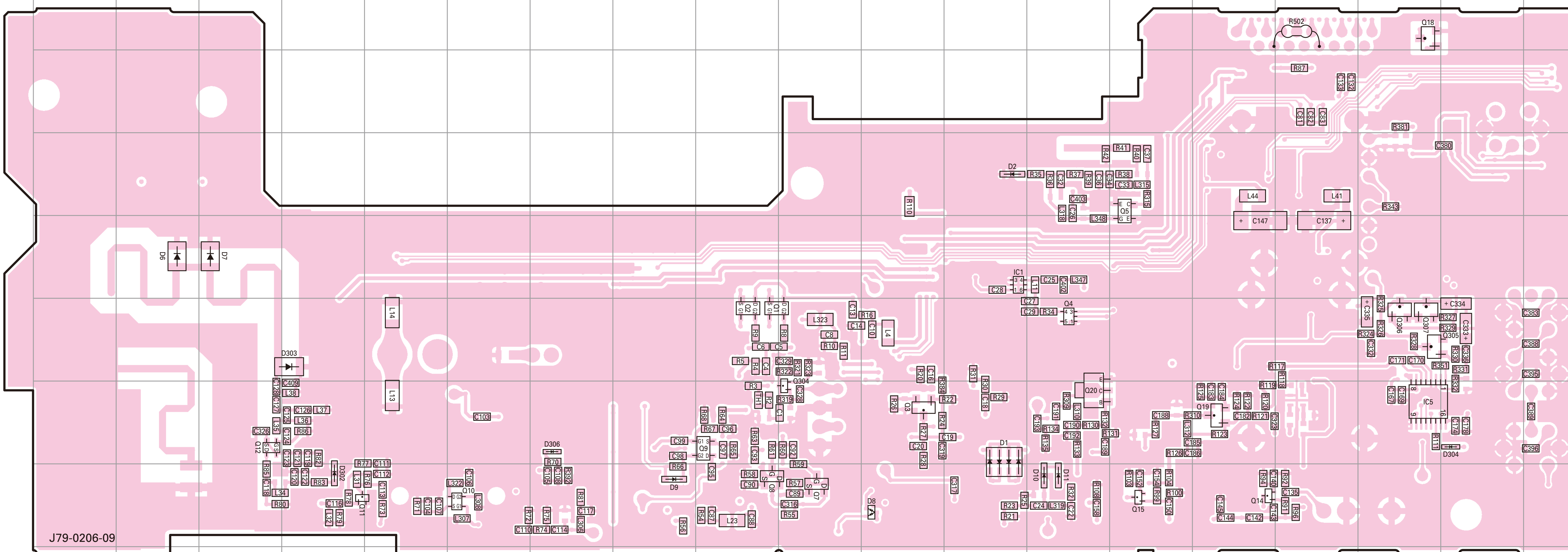


Ref No.	Address	Ref No.	Address	Ref No.	Address	Ref No.	Address	Ref No.	Address
IC3	4N	Q17	7D	Q311	4B	D3	5Q	D301	7C
IC4	5D	Q301	8D	Q312	9B	D4	5S	D305	7C
Q6	5I	Q302	8E	Q313	5A	D5	6S		
Q13	5E	Q303	9J	Q314	5B	D12	4E		
Q16	6D	Q310	4B	Q315	9I	D13	6H		

Component side
Layer 1
Layer 2
Layer 3
Layer 4
Foil side

PC BOARD TS-2000/B2000/2000X TS-2000S/2000V/2000SX/2000VX

TX-RX 3 UNIT (UT-20) (X57-607X-XX) 0-00 : J2,J3,K3 2-71 : E5 Foil side view (J79-0206-09)



Ref No.	Address	Ref No.	Address	Ref No.	Address	Ref No.	Address	Ref No.	Address	Ref No.	Address	Ref No.	Address
IC1	6L	Q4	7M	Q10	9F	Q18	3Q	Q306	7Q	D7	6C	D302	9D
IC5	8Q	Q5	5N	Q11	9D	Q19	8O	Q307	7Q	D8	9K	D303	7D
Q1	7I	Q7	9J	Q12	8C	Q20	8M	D1	8L	D9	9H	D304	8R
Q2	7I	Q8	9I	Q14	9O	Q304	8J	D2	5L	D10	9M	D306	8G
Q3	8K	Q9	8I	Q15	9N	Q305	7Q	D6	6B	D11	9M		

Component side

Layer 1
Layer 2
Layer 3
Layer 4

Foil side

FINAL UNIT (430) (X45-384X-XX)(B/2)

TX-RX3 UNIT (1.2G) X57-607X-XX -W3

TX-RX3 UNIT (1.2G) X57-607X-XX -W2

FINAL UNIT (HF) X45-384X-XX (A/2) -CN204

FINAL UNIT (HF) X45-384X-XX (A/2) -CN203

CN903 GND

CN904 +B

TX-RX2 UNIT (VU RF) X57-606X-XX (A/11) -CN3

CN901 43TX

C901 47p

*R925

*R927

C902 15p

R910 470

L907 100n

L908

C917 4p

Q901 NESG260234

PRE-DRIVE AMPLIFIER

C915 47p

C918 5p

C931 27p

C932 27p

R912 18

DRIVE AMPLIFIER

Q903 PD55015S-E

RX:0V TX:7.24V

RX:0V TX:0.79V

RX:0V TX:2.90V

RX:13.61V TX:13.48V

RX:0V TX:2.25V

RX:13.60V TX:12.82V

C939 18p

C941 18p

C936 20p

C943 4p

C947 13p

C987 15p

C950 10p

L912

R913 100 1W

Q905 RD60HUF-1-101

FINAL AMPLIFIER

C961 27p

C945 8p

C998 15p

C968 1000p

L914

R914 150 1/2

*R916

C966 0.01u

C969 470p

C967 470p

C970 0.01u

C971 470p

R918 120

R915 120

C976 470p

R917 100

C973 470p

D905 MA3J742

HIGH-FREQUENCY RECTIFICATION

B R911 0.1 1/8

C934 470p

C938 0.01u

L910

C953 470p

C956 0.01u

C958 0.1u

C959 47u25

L915

L909

C940 470p

C942 0.01u

C944 10u50

C960 27p

L913

C962 470p

C963 0.01u

C965 10u50

SWITCHING

D906 MA4PH633

L916

L922

C951 6p

C954 1.5p

C955 3p

C993 6p

C994 5p

C985 3p

CN906 430ANT

CN907 GND

C979 4p

C978 4p

C982 10p

C949 7p

L923

C995 33p

L932

L924

L918

L919

C981 470p

CN905 43RX

D908 L7091CER

C980 7p

D909 HVU131-E

SWITCHING

SWITCHING

TX-RX2 UNIT (VU RF) X57-606X-XX (A/11) -CN2

UTXB

L903 33n

R905 4.7

C905 0.01u

C907 470p

C903 47u25

C921 470p

C922 0.01u

L905 10n

TEMPERATURE COMPENSATION

R907 3.9

D901 DAN202U

C914 0.1u

C912 470p

C916 0.01u

R928 2.2k

C919 470p

VR901 10k

R924 47k

C926 470p

C928 0.1u

C948 0.01u

C952 470p

R923 47k

TH901 NCP18XW153J03S

UTXB

L927 100n

C906 0.01u

C909 470p

UTXB

R929 2.2k

C946 470p

VR902 10k

R930 2.2k

TP901

D904 MA3J742

D904 HIGH-FREQUENCY RECTIFICATION

C974 470p

CN902

TX-RX2 UNIT (VU RF) X57-606X-XX (A/11) -CN12

UTHV	1	THU
43VSF	2	43VSF
UTXB	3	UTXB
14S	4	SB
14S	5	SB
43VSR	6	43VSR
GND	7	GND
GND	8	GND

L901 100n

C904 470p

L928 100n

C989 100p

UTXB

L929 100n

C996 470p

C990 100p

43VSF

L930 100n

C997 470p

C991 100p

43VSR

*R919

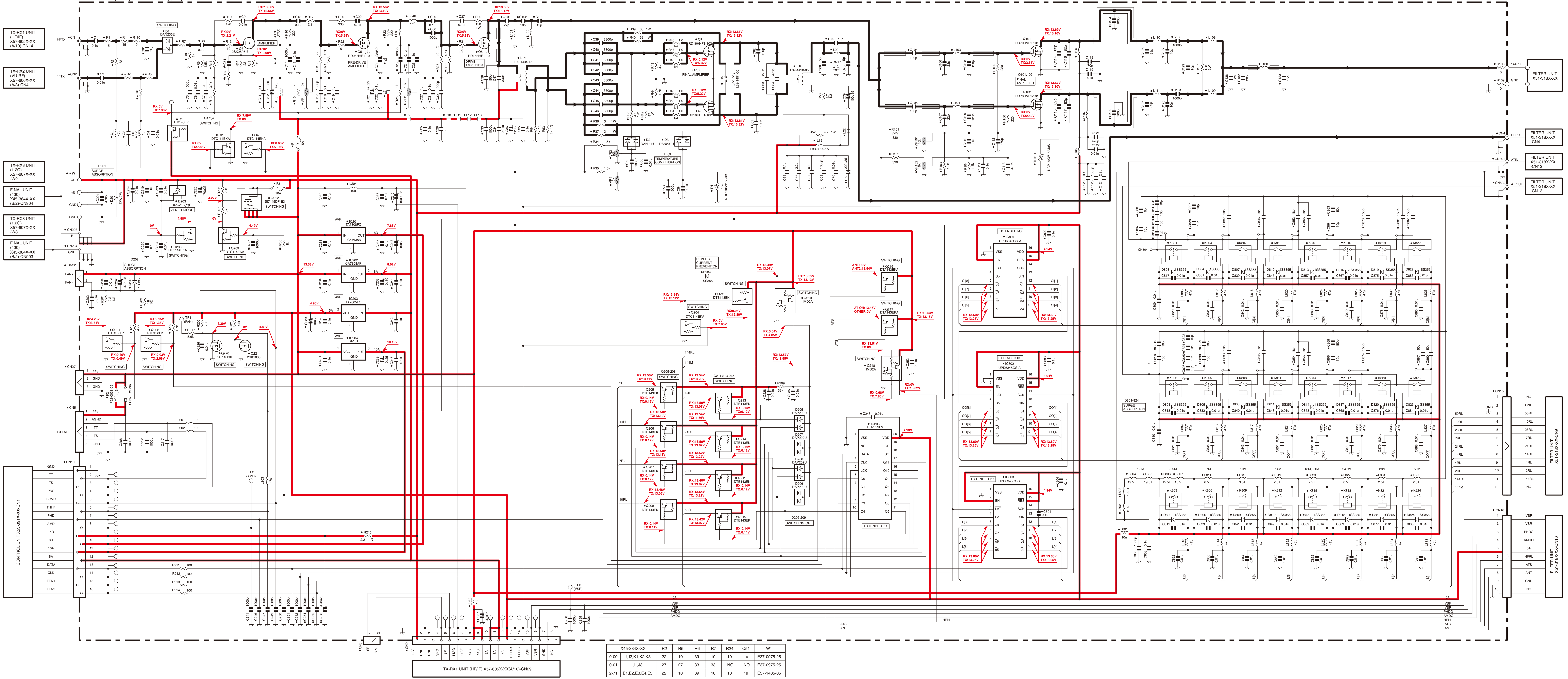
*R921

*R920


R922 56k

X45-384X-XX		R916	R919	R920	R921	R925	R927
0-00	J,J2,K1,K2,K3	470	2.7k	100k	68k	22	NO
0-01	J1,J3	100	47k	56k	33k	27	47
2-71	E1,E2,E3,E4,E5	470	2.7k	100k	68k	22	NO

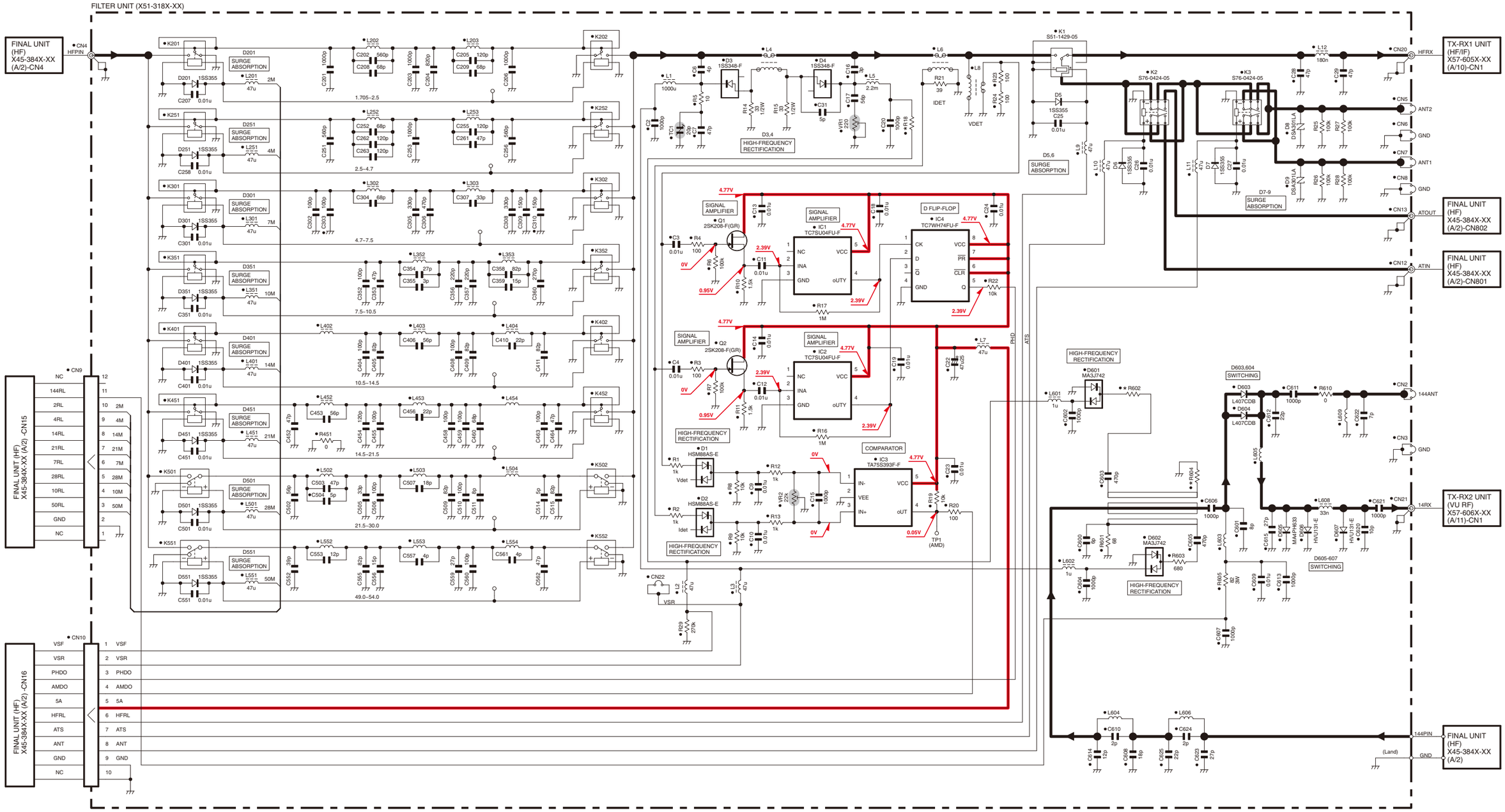
FINAL UNIT (HF) (X45-384X-XX)(A/2)



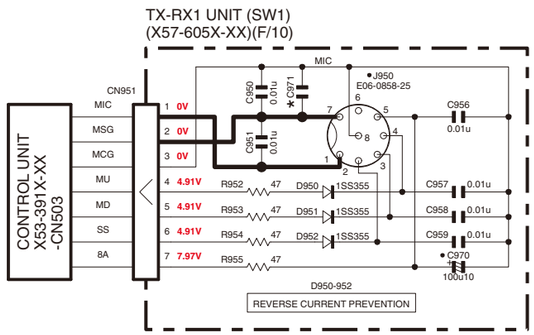
X45-384X-XX		R2	R5	R6	R7	R24	C51	W1
0-00	J,J2,K1,K2,K3	22	10	39	10	10	1u	E37-0975-25
0-01	J1,J3	27	27	33	33	NO	NO	E37-0975-25
2-71	E1,E2,E3,E4,E5	22	10	39	10	10	1u	E37-1435-05

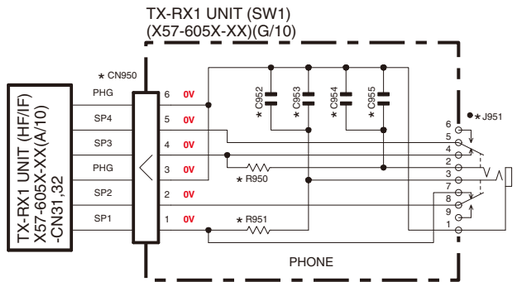


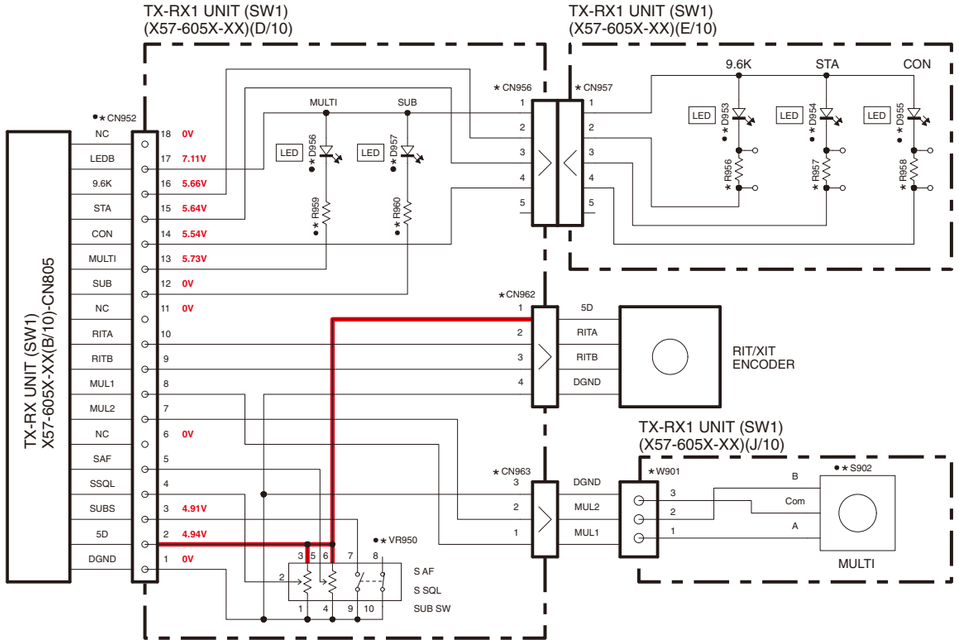
X57-607X-XX		IC4
0-00	J2,J3,K3	AD9851BRS
2-71	E5	AD9851BRSZ

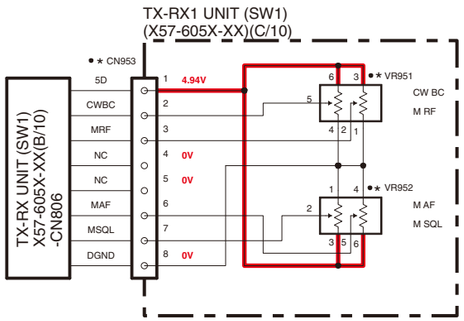


X51-318X-XX		R18	R602	R604
0-00	J,J2,K1,K2,K3,E1,E2,E3,E4,E5	33k	820	68
0-01	J1,J3	4.7k	470	100

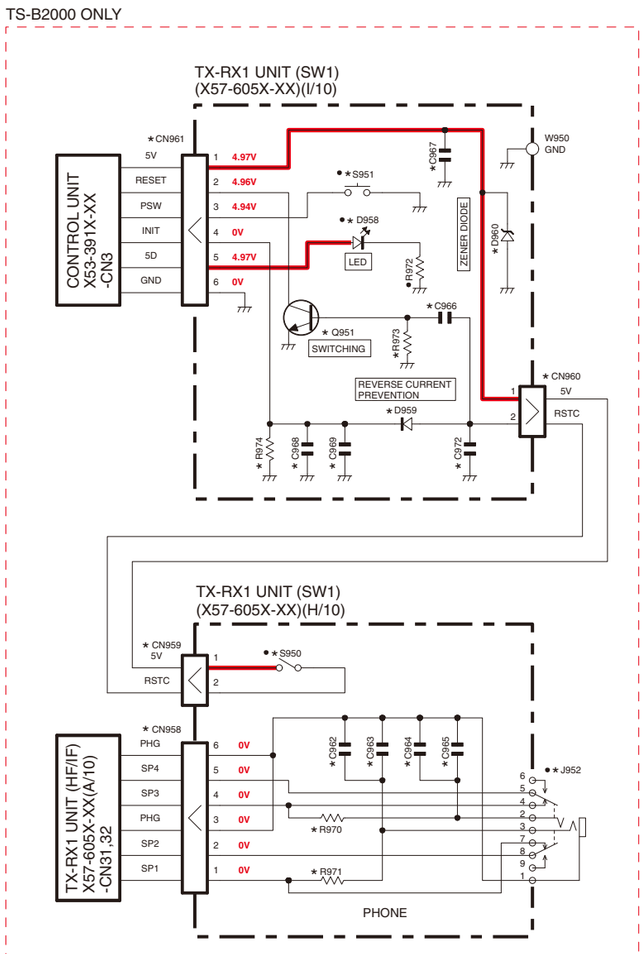








TS-B2000 ONLY



X57-605X-XX		CN950	CN952	CN953	CN956	CN957	CN958	CN959	CN960	CN961	CN962	CN963	D953	D954	D955	D956	D957	D958	D959	D960	J951	J952
0-00	J,J2	E41-1686-05	E40-6074-05	E40-6077-05	E40-6610-05	E40-6594-05	NO	NO	NO	NO	E41-1684-05	E41-1683-05	B30-2217-05	B30-2217-05	B30-2167-05	B30-2218-05	B30-2140-05	NO	NO	NO	E11-0705-05	NO
0-01	J1,J3	E41-1686-05	E40-6074-05	E40-6077-05	E40-6610-05	E40-6594-05	NO	NO	NO	NO	E41-1684-05	E41-1683-05	B30-2217-05	B30-2217-05	B30-2167-05	B30-2218-05	B30-2140-05	NO	NO	NO	E11-0705-05	NO
0-11	K1,K3	E41-1686-05	E40-6074-05	E40-6077-05	E40-6610-05	E40-6594-05	NO	NO	NO	NO	E41-1684-05	E41-1683-05	B30-2217-05	B30-2217-05	B30-2167-05	B30-2218-05	B30-2140-05	NO	NO	NO	E11-0705-05	NO
0-12	K2	NO	NO	NO	NO	NO	E41-1686-05	E41-1682-05	E41-1682-05	E41-1686-05	NO	NO	NO	NO	NO	NO	NO	B30-2168-05	1SS355	UDZS6.2B	NO	E11-0705-05
2-71	E1,E3,E5	E41-1686-05	E40-6074-05	E40-6077-05	E40-6610-05	E40-6594-05	NO	NO	NO	NO	E41-1684-05	E41-1683-05	B30-2217-05	B30-2217-05	B30-2167-05	B30-2218-05	B30-2140-05	NO	NO	NO	E11-0705-05	NO
2-72	E2,E4	NO	NO	NO	NO	NO	E41-1686-05	E41-1682-05	E41-1682-05	E41-1686-05	NO	NO	NO	NO	NO	NO	NO	B30-2168-05	1SS355	UDZS6.2B	NO	E11-0705-05

X57-605X-XX		Q951	S902	S950	S951	VR950	VR951	VR952	W901	R950	R951	R956	R957	R958	R959	R960	R970	R971	R972	R973	R974	C952	C953	C954	C955	C962	C963	C964	C965	C966	C967	C968	C969	C971	C972
0-00	J,J2	NO	T99-0653-05	NO	NO	R31-0633-05	R31-0637-05	R31-0634-05	E37-1418-05	120	120	680	680	680	680	680	NO	NO	NO	NO	NO	1u	1u	1u	1u	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
0-01	J1,J3	NO	T99-0653-05	NO	NO	R31-0633-05	R31-0637-05	R31-0634-05	E37-1418-05	120	120	680	680	680	680	680	NO	NO	NO	NO	NO	1u	1u	1u	1u	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
0-11	K1,K3	NO	T99-0653-05	NO	NO	R31-0633-05	R31-0637-05	R31-0634-05	E37-1418-05	120	120	680	680	680	680	680	NO	NO	NO	NO	NO	1u	1u	1u	1u	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
0-12	K2	2SC4617(R)	NO	S70-0461-05	S70-0475-15	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	120	120	150	47k	470k	NO	NO	NO	NO	1u	1u	1u	1u	0.1u	1u	1u	1u	NO	1u
2-71	E1,E3,E5	NO	T99-0653-05	NO	NO	R31-0633-05	R31-0637-05	R31-0634-05	E37-1418-05	120	120	680	680	680	680	680	NO	NO	NO	NO	NO	1u	1u	1u	1u	NO	NO	NO	NO	NO	NO	NO	NO	0.47u	NO
2-72	E2,E4	2SC4617(R)	NO	S70-0461-05	S70-0475-15	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	120	120	150	47k	470k	NO	NO	NO	NO	1u	1u	1u	1u	0.1u	1u	1u	1u	0.47u	1u